

THIS MONTH: 53 LIBERTARIAN BOARDS

AUGUST 1995

BOARDWATCH **MAGAZINE**

Guide to Electronic Bulletin Boards and The Internet

JAVA

**Eye-Opening Internet
Programming Language**

Boca Research

Makes Bid to Buy Hayes

GNN, Lycos and Webcrawler Sold

**Interview with Brian Pinkerton,
Webcrawler Author**

Mindwire Client/Server

**from Durand
Communications**

Trumpet Winsock 2.1

Update, Tutorial

JAVA

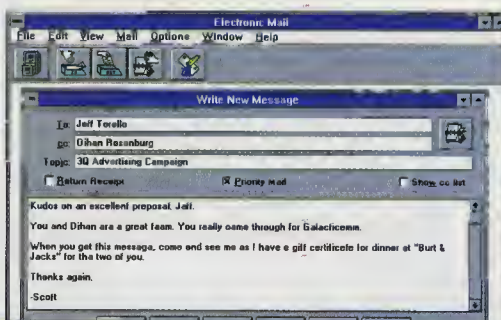
Windows State-of-the-E-mail Address



\$4.95 U.S. & CANADA

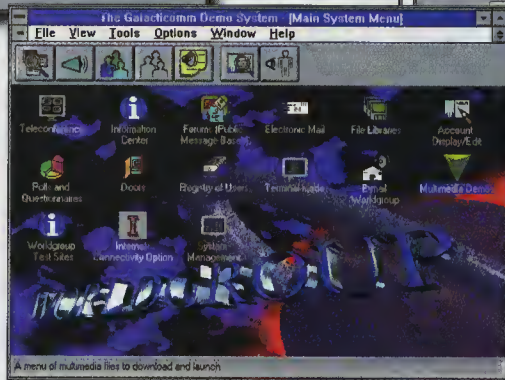


Worldgroup Manager. Users access and navigate your system with Worldgroup Manager, a freely distributable Windows client. With the click of an icon, users are connected and logged in to your system.

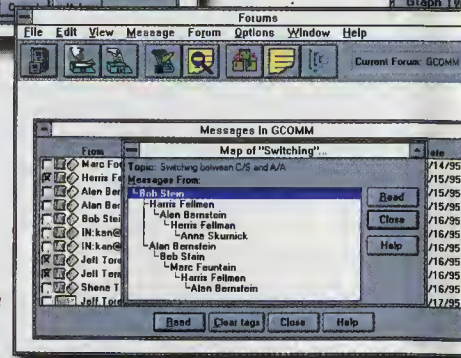


E-mail: Users can easily manage their mail with their own in box, out box, multi-folded filing cabinet, address book and more.

► *Main menu: Launch your own online service, right out of the box, with Worldgroup. Offer users e-mail, forums, multi-user teleconference, polls, files, Internet access and more.*



► *Forums: Create up to 10,000 group message areas or Internet newsgroups for users to exchange ideas on a variety of topics. A map even helps users track conversation threads visually.*



Open Your Windows to the

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The newest, smartest generation of online software isn't coming from Microsoft. Or CompuServe. Or America Online. It's coming from you — and Galacticomm, the creator of The Major BBS®.

It's called Worldgroup. And it's a client/server online software platform that brings the world to you.

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By running your own online service, you have 100% control over the content, presentation and revenue of your system. And Worldgroup's client/server approach makes it easy for anyone to use.

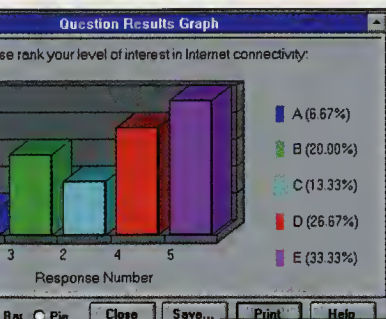
The client runs under Windows on your users' machines. Its multi-threaded architecture lets them do all sorts of cool things simultaneously. Like download files in the background, while reading new mail. Or auto update

new versions of applications transparently. Local caching, "look ahead" and client-driven intelligence maximizes performance at 2,400 or 28,800 bps.

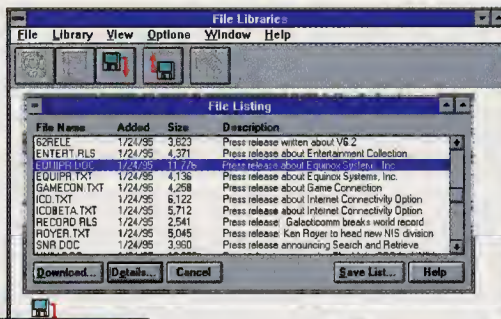
You can customize all the icons and menu pages out of the box. With Worldgroup's multimedia features, you can have a "splash" screen with a BMP image and a WAV or MIDI file, graphic menu backdrops, real-time video and more.

There's even a "launch" client/server utility that downloads and launches files for your users, such as Adobe Acrobat files, Word documents and PowerPoint presentations, in one easy step — while the user is online.

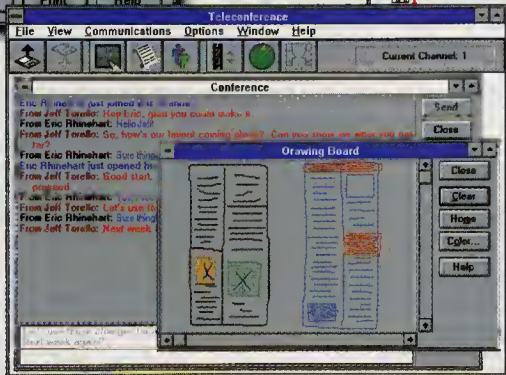
You can use Visual Basic and C to create your own custom client/server applications (we provide source code). Or, just plug and play dozens of add-on applications from our network of Independent Software Vendors.



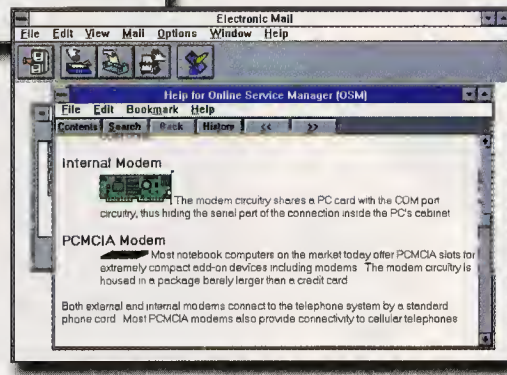
Polls and Questionnaires: Offer marketing surveys, suggestion boxes, applications forms and testing, to name a few. Results are immediately tallied and can be viewed as exportable bar graphs or pie charts.



File Libraries: Users simply tag the files they're interested in and select the download icon. Files can be downloaded in the background while users enjoy your other services.



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Worldgroup's client/server interface works just as well over the Internet as it does with dial-up modems. We're talking full-fledged interactive applications, not just documents. In addition, ftp server and basic WWW server capabilities are also supported.

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Worldgroup provides a communication model that brings the inside world and the outside world together in a secure, productive environment.



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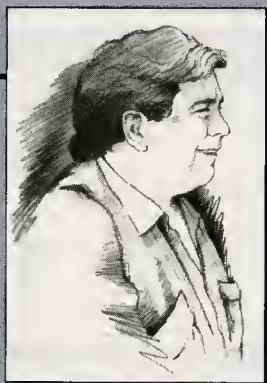
AUGUST 1995

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FABLE OF CONTENTS

EDITOR'S NOTES ... 8

A Cup of Coffee With the Webmeister

IN MY HUMBLE OPINION — LETTERS TO THE EDITOR ... 10

GOVERNMENT ACCESS..... 114

Mandating Online Campaign
Finance Disclosure — Part 2

MACINTOSH NEWS 60

CU+SeeMe, Eudora, Web Weaver,
HotMetal Pro

BEGINNER'S LUCK 144

Learning to be a Sysop

PEOPLE ONLINE 148

Bulletproof Missionary

EDUCATION LINK..... 118

Why Teachers Fear the Internet;
Search Tools; Channel One

TECHNOLOGY FRONT..... 63

DCN's Mindwire Windows Client/Server

DVORAK ONLINE ... 170

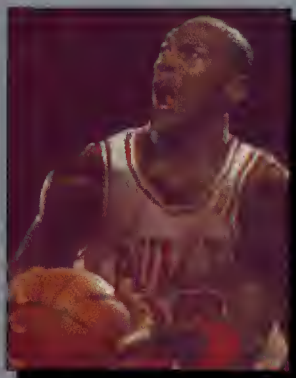
Prodigy & Windows 95
— Winners or Losers?



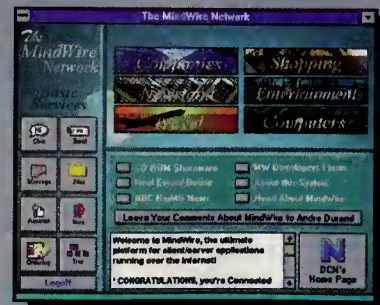
FEATURES ...



Java: A Whole New
Client/Server Game,
Page 40



Babb's Bookmarks,
Page 46



Mindwire by DCN,
Page 63



SeaQuest Fans Roast
NBC Online... Page 138



The E-Mail Connection,
Page 71

TELEBITS

Boca Research Makes Bid to Buy Hayes	22
Technology Update	24
eSoft Merges With Durand Communications Network	25
House Speaker Gingrich Denounces Exon Amendment	28
Connecticut Bans Online Harrassment	28
SlipKnot Wins Ziff-Davis Awards	29
Infoseek Sells Web Info and More	29
O'Reilly Debuts USENET Guide	29
GENie Drops Surcharges, Adds 14.4 Access	32
Iomega Releases 1 Gigabyte Removable Mag Disk	32
Full-Service Banking On the Internet	32
Movie-Based "First Knight" Web Game Offers Fun, Prizes	32
Library of Congress Web Site Expands	35

WEBWATCH

Netscape Web Server Free Evaluation	39
Java: New Development Language for the Internet	40
Babb's Bookmarks: Censorship & Personalities On the Web	46
Publishing on the Web—Part 7: Netscape HTML Extensions	55

INTERNETICA

Windows E-Mail: SMPT/POP3, Pegasus, E-Mail Connection	71
Consummate Winsock Apps	75
Dr. Bob Interviews Webcrawler Author Brian Pinkerton	80
Adventures in Linux—Part 1	82
The Complete Internaut's Toolkit: Using Trumpet Winsock 2.1	94
Beating the Phone Company: UUCP Feeds Via Rlogin	98
A Girl's Guide to Geek Guys/The Complete Geek Test	68
Tony://eyes.of.a.child.edu—A Parenting Lesson	102

LEGALLY ONLINE

Lance Rose: Stratton Oakmont Prodigy—The Danger of Being a "Family Service" ...	106
Eric Schlachter: Stern V. Delphi—Are Online Services News Disseminators?	110

THE BIG BOARDS

CompuServe's MacCIM; System 7.5; MS Internet Tools; Movie, ISDN Forums	122
Prodigy's New Mail Manager; Internet Communities; Car-Shopping	126
AOL's Buying Spree; Nintendo, Congressional Quarterly, Shopping Forums	130
Delphi UK: Body-Piercing; English Channel Tunnel; London Times	134

DIRECT DIAL

World Data Network PC Board: Providing SLIP & More	152
Gateway Online: Detroit's Backyard Fence & I-Way On-Ramp	153

LISTS OF THINGS

Libertarian BBS List	154
Glossary	146
List of BBS ListKeepers	166
The List—BBS Classified Ads	156
Advertisers List	169

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IN ORDER OF NUMBER OF VOTES RECEIVED BETWEEN JANUARY 1 AND JUNE 30, 1994

TITLE	PHONE	DESCRIPTION	SOFTWARE	LINE
1. Software Creations	504-368-7139	The Primary Source for Entertainment Software	PCBoard	134
2. EXEC-PC	414-789-4360	Largest dial up BBS for shareware software	Custom	280
3. GLIB	703-578-4542	Gay & Lesbian Information, Internet email, live chat	TBBS	23
4. Monterey Gaming System	408-655-5555	Custom interactive gaming and multi-user conferences	Custom	32
5. Blue Ridge Express	804-790-1675	Custom file base with 3 Gigabytes and CD-ROMs	RBBS	36
6. Deep Cove BBS	604-536-5885	News, publications, Internet email, shareware, games	TBBS	33
7. AlphaOne Online	708-827-3619	Adults only, matchmaking, personals, shareware	TBBS	18
8. America's Suggestion Box	516-471-8625	Information and help of searching for people	OraComm	74
9. Lifestyle Online	516-690-5390	13 Gigs of Shareware, Internet email, Usenet newsgroup	TBBS	16
10. Prodigy Genealogy	800-775-7714	Adults only, matchmaking, BBS lists, Internet email, chat	TFP	64
11. Chrysalis	214-690-9295	Online publications, BBS lists, Internet email, chat	TBBS	10
12. Pleasure Dome BBS	804-490-5878	Internet accounts, 10 Gigs online, Fidonet IC	Wildcat!	32
13. INDEX System, The	404-924-8472	4000 Usenet newsgroups, full Usenet	TBBS	16
14. Pennsylvania Online	717-657-8699	.OS/2 support and shareware files	TBBS	24
15. Springfield Public Access	413-536-4365	Full Internet, Internet accounts, full Usenet	Maximus2	18
16. OS/2 Shareware	703-385-4325	No fees, full access on first call, 12 Gigs online	PCBoard	1
17. DSC	215-443-7390	Illinois's largest filebase, message base	SHS	1
18. Wizards Gate BBS	614-224-1635	Internet, Usenet, Fidonet, shareware, online games	PCBoard	1
19. Aquila BBS	708-820-8344	Distribution & support for Telix	RA Pro	1
20. Nashville Exchange, The	615-383-0727	US & World News, Stock information, full Internet	Custom	1
1. deltaComm Online	615-383-0727	Largest classified ad database, national access	PCBoard	1
2. File Shop BBS, The	819-381-9399	Large message base, shareware, ads	TBBS	1
3. Traders Connection	815-587-3311	General BBS, messages, files, chat, email	Falken	1
4. Ohio Son BBS	317-359-5199	Since 1982, online games, messages, games, matchmaker	PCBoard	1
5. InfoService	610-439-1509	9 Gigs online, chat, messages, adult area	Wildcat!	1
6. The	908-205-0189	Internet, Usenet, shareware, 100 online games, echos	TBBS	1
7. on Systems	703-749-2860	5.7 Gigs, 35,000 files, 100 online games, echos	TBBS	1
	914-667-4066	Large shareware system, chat, Internet email	PCBoard	1
		support, 5 Gigs online		
		files online		

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EDITOR'S NOTES

A CUP OF COFFEE WITH THE WEBMEISTER

The World Wide Web has taken on life with unprecedented enthusiasm and energy. We did an intro to NCSA Mosaic in March of '94 with but a handful of WWW sites in operation at the time. By our October '94 issue, it had grown to 800-1000 sites. Today, there are at least 60,000 WWW sites in operation and the Lycos web spider has catalogued over 3.5 million documents on this network. We have actually crossed some sort of threshold where if you know a company name, you can usually guess an http: address within a couple of tries and they will almost inevitably have a site up. Case in point:

There are a number of products coming out for Windows NT. Even Microsoft now admits the Windows95 hype has probably exceeded the realities of code. At the same time, NT has gone through enough builds to approach a functional level of operation. A number of large corporations are looking at migrating to NT INSTEAD of Windows95. Both will have essentially the same interface, but NT actually DOES seem to run better in a lot of respects. Bailing on total compatibility with every Windows application ever written seems to improve operation somewhat.

In any event, I wanted a pretty hot NT box on the desk here to try out all the new Ntisms under release. Gary pieced together a 486-100 Mhz with 32 MB of RAM and a 1.2 GB drive adequate to test even the broken ones. But the video driver that came with NT for some reason rendered a screen of about 60 X 40 pixels in maybe nine colors and it looked pretty sad. I inquired as to what video card we were using and was surprised to learn it was an STB Systems Lightning VL. I've used a lot of STB cards over the years and rather like them. The Lightning VL uses a TSENG 4000 32-bit chip that's actually

pretty hot. We should do better. The book that came with the card referred to a Windows directory that didn't actually exist on the supplied diskette. But it would have contained Windows 3.1 drivers if it had. It was after 6:00 pm so calling Richardson Texas wasn't much use either.

Finally, I popped up Netscape and entered <http://www.stb.com> on a lark. As it so happens, there WAS a www.stb.com, it WAS STB Systems, and they had an entire set of ftp directories with drivers. The BETA directory had one for Windows NT, and we're now doing 1024 X 768 in 32,000 some-odd colors - sufficient for photo work in Adobe Photoshop.

So we tried some others. There was no www.coke.com. It was www.cocacola.com. In fact, you can't really name a recognizable trademark or corporate name of any note without finding an associated web page. It is almost as if we no longer NEED pointers to web sites at all. If you know the company name, you can probably guess the web site address within two attempts, and in almost all cases, you'll find an associated web page. We've really crossed a threshold here somewhere along the line.

One of the things we hear most often comes from existing BBS and online service operators who are struggling with the conversion to this web world. There are a lot of plaintive "yes but the web can't do x..." comments. Additionally, we see an extraordinary amount of energy going into developing somewhat parallel online service platforms that also work over the Internet but DO do "x." Durand Communications MindWire and Galaticomm's WorldGroup are interesting examples. And they may even be excellent solutions. Clearly, the existing document orientation of the http protocol, the HyperText Markup Language HTML, and the state of existing web server software would seem to leave some rather gaping holes. Existing online service operators moving to the web, and the native webmeister population both WANT user databases, some control of access, file areas, chat areas, message conferences, and much more.

Chris Duke of Duke Engineering (<http://www.duke-net.com>) has already done a CGI program for O'Reilly's WebSite that is essentially a series of threaded message conferences with a user database that is in most respects a fully functional BBS - but in HTML of course. To see how files should be made available over the web, you might visit Kevin Behrens' Aquila BBS at <http://www.aquila.com> or our new Winsock columnist, Forest Stroud's Consummate Winsock Programs area at <http://uts.cc.utexas.edu/~neuroses/cwsa.ct1>. The web is evolving into a BBS in almost all respects.

There are even some applications that simply require some form of session-based protocol where you know who is "on" your service and for how long. The former group already has a name for these wish-list items, while the latter struggle to come up with names to associate with the arm waving needs they feel so painfully. So it looks to be an extraordinary period of opportunity for developers who guess right at how to provide these functions, and a terribly painful period for those who guess wrong. Entire classes of software are becoming irrelevant, while others are VERY hot right now, but don't actually have a name yet.

As a result, one of the things we've been watching with the greatest interest is the evolution of the web into essentially fully functional bulletin boards - true communities of people as opposed to document drops. But how this inevitable evolution will occur is a bit puzzling. Will the web be subsumed under a world of other solutions that include the web browsers and web access as part of themselves, or will new functionality be developed WITHIN the context of the existing WWW genre? Essentially, will the web be part of the wider world, or will all the world be part of the web?

So it is probably time to attempt to divine the future from tea leaves and chicken entrails again. This is getting harder, and despite the mythology that has grown up around Boardwatch, let me be the first to note that I have missed in the past. Not on anything important, but it's happened.

My current sense is that the world will emerge within the context of the web, and all future developments of any import will spring from enhancements to the web itself, and almost never outside of it. This prediction is counterintuitive, and undoubtedly going to garner some extraordinary heat from those hoping for a different scenario, but there it is. The web won't be PART of anything. Everything available on the internet, including FTP, telnet, etc., and all future enhancements will be part of the web browser interface. It will subsume everything in its path.

The greatest part of the reasons why have to do with some extraordinary choices by some of the movers and shakers in web land. Netscape has become so dominant in the browser arena that a significant percentage of sites brazenly post various messages indicating that if you don't use Netscape - go away. Yet Netscape Communications continues to participate in a very open process of publishing new specifications such as Secure Sockets Layer (SSL) for public adoption. The browsers themselves are quite "open" in that you can add "helper" applications ad infinitum to read any kind of file format you want. The ultimate here is to see Adobe touting their very closed file format, Acrobat, via a freely downloadable helper application for Netscape. (You guessed it, you can download it free from <http://www.adobe.com>.)

Yet Netscape remains freely available for download at (you guessed it) <http://www.netscape.com>. I had assumed that they needed to become dominant in browsers so they could sell their \$5000 server software and differentiate from all other servers by taking advantage of security functions embedded in the free server. But now Netscape is actually making their pricey server programs ALSO available for download for a free 60 day trial use. And they have released a \$795 NT server version as well. You fill out a form and they tell you by e-mail how to download the program. It is the same software. But after 60 days you must cough cash or shut it down. Fair enough.

But the openness of Netscape and their propensity for distributing software without a price tag is not the real reason I'm excited about development of additional functions within the web. Sun Microsystems has put together an entire development programming language. Originally titled OAK, it is now referred to as JAVA and it is quite revolutionary. It allows anyone to develop programs to act as clients, distribute

them in real time via HTML/Web, and run on any platform that contains the JAVA run-time interpreter. They do have a web browser of their own titled HOT JAVA to demonstrate this, and it too is freely available for download. But Netscape has already licensed JAVA and will incorporate it into Netscape. And Sun has not only made the software, but even the source code for JAVA, freely available online (<http://java.sun.com>). Additionally, there are already sample applets, documentation, programmers guides, etc. also freely available.

This may be the most important development on the Internet to date. JAVA is basically the first architecture-neutral, REALLY portable development language ever created, and specifically with the net in mind. And it's no weeny language. It looks a lot like C++, but it produces pseudocode they call BYTECODE that can be transmitted WITHIN an HTML page to anyone connecting to the page. The interpreter, built into the HOTJAVA browser and ostensibly and predictably into ALL future browsers for the Macintosh, Windows, UNIX, and any other platform in some future existence, then runs the p-code locally. Sun even alludes to future "byte code compilers" that can compile the code into machine code that runs at about the same performance as C++. And all the TCP/IP and net-centric acrobatics are, to the programmer, simply URLs. In this future world, you don't NEED to download the Adobe Acrobat reader, install it, and configure Netscape to use it. Rather, you access the web page where it is needed, it sends the program automatically, and it installs itself, runs itself, and configures itself while you watch.

Is this crazy? Each time someone connects, you send them the client program they need to access your service? Not in web world. The programs will typically be smaller than the home page graphic images already clogging the network. And you don't have to be concerned at all with distribution of your client software - it's automatic. If you want YOUR web page to sport a scrolling bar of stock ticker symbols and prices across the bottom of the screen, you simply create a new application for the user, and when they get the screen, they get the program. Once the program has transferred, it establishes a link back to the server, and they do lunch. The result, stock prices rolling across the screen. Today you want them to be GREEN? Revise the program and don't worry about upgrades. When they come in for stocks, they automatically get the new

applet and the scrolling stock symbol window is now thereby and therefore officially and for one day only, really, really green. And it's green on ALL platforms - UNIX, Mac, Dec, Windows, NT, Windows95, Windows96, Windows97, and their successors and assigns. And of course, assuming someone does do the JAVA browser, the Commodore C-64 we shouldn't have forgotten to mention in the pages of Boardwatch.



So we have a very strange combination going here. A major computer technology company, with a really innovative new development language for the network, is openly publishing specifications, source code, and demo copies at no charge, to a tool that itself makes the World Wide Web endlessly extensible at almost all levels right down to the protocol itself. The end user will do what they most are capable of doing - clicking one button of a two button mouse, and online service operators and developers have no limit on what they can deliver - with the lone exception of bandwidth. Do you think you have the neatest video compression scheme on the planet? Go for it and don't worry about who adopts it. Anyone who accesses your web page to see your videos has it if you give them (or sell them) the viewer. Do you need a session-based connection so you can tell who is on and for how long? Send them a client that works with your server, and have it phone home via the net. You're there.

And Sun doesn't have to knock off anybody to do it. Netscape, by some estimates 75% of the installed browsers out there, has already licensed JAVA to put in their browser. In fact, Sun and Netscape had a special press briefing in April to announce that they found each other terribly cool. And we're starting to see why. They ARE both terribly cool. And so is this Hot Java concept...

It makes the World Wide Web endlessly extensible. And in the process, it solves two entirely DIFFERENT problems we've struggled with so long, everyone more or less gave up on a solution. First is the almost historic problem of developing software for multiple platforms. To release a program that works on

Windows, Unix, and the Macintosh is a nearly herculean effort. And in communications software, if you leave one out, you've omitted a significant segment of the online population. With PowerPC, Windows NT, Windows 95, et. al., this plethora of operating systems is getting worse not better. Java may well offer the first platform developers can use to truly develop apps that operate across all these platforms with essentially no programmer effort.

The second unsolvable problem had to do with client distribution. Any time anyone in this community has had a good idea for improving the world online, they've faced this mountainous task of getting the necessary protocol, graphics interface, or other client-end program in the hands of enough of the body politic to matter at all. And if they couldn't get it out there somewhat universally, the idea died on the vine with extremely cruel predictability. Currently all of the major

online services are in abject terror of Microsoft's new network, MSN, solely because Microsoft has the power to include the client for the service with the Windows 95 operating system.

Meanwhile, AOL is mailing their client to the four winds in such copious quantities that my Editor At Fault very nearly got Southland Corporation to agree to accept AOL disks in exchange for Slurpees and donate the disks to local schools. We will probably have a "what can you do with a dozen AOL disks" contest in a coming issue. They appear to have mailed the disks to nearly everyone on the planet, at least six times, and included them with every computer magazine that would put up with the ratty plastic bag packaging necessary to deliver the disk. There is nothing threatening about MSN beyond this ability to deploy the client software with more leverage than anyone else.

Java cures it rather completely. Initially leveraging the relatively universal adoption of Netscape as the browser of choice, Java empowers ANYONE with a WWW site and the Java compiler, which is free, to write their own client and put it on their own WWW site. It "downloads" and runs automatically on the caller's system. You don't worry about updates. The next time they make the connection, they get a new one.

So, regarding future developments of online technology, and the web, it's entirely the web and its "in there." If you disagree, you can put it in there. I suppose there is still room to develop things "outside" the web. I just don't think anyone, even the market of last resort, the mythical "vertical apps," will care.

Jack Rickard



LETTERS TO THE EDITOR

Address correspondence to Letters to the Editor, Boardwatch Magazine, 8500 West Bowles Ave., Suite 210, Littleton, CO 80123; by fax to (303)973-3731 or by e-mail to letters@boardwatch.com.

Jack,

In the last issue of *Boardwatch*, a letter to the editor worried about Internet access for those with disabilities, especially in light of everything going GUI.

I just found this page on the internet.
[HTTP://BUCKY.AA.UIC.EDU/](http://BUCKY.AA.UIC.EDU/)

It appears to be Mosaic's page on using the internet for the disabled.

Thought your readers might find it interesting.

David Dodell
David@mailhost.smhsi.com

David:

Thanks much. But your modesty serves me poorly. For our readers who don't know, David Dodell is actually Dr. David Dodell, a medical doctor and long time Fidonet guru from the early days who actually pioneered one of the first Fidonet/Internet mail gateways allowing Fidonet bulletin boards to

address mail to the Internet. He was, as I recall, the default gateway for those Fidonet participants who did not sport a local gateway. He's no longer active with Fidonet. Today, he publishes a fascinating electronic newsletter on health matters titled the Health Infocom Newsletter or HICNet. HICNet is available by anonymous ftp from vm1.nodak.edu in the directory HICNEWS or via World Wide Web at <http://lax.xrt.upenn.edu:2000/hicn>. He can also be reached at David@Stat.com.

Strange how the same names crop up year after year.

Jack Rickard

...

FV ARTICLE IN BOARDWATCH

Hi Jack. Long time no talk -- don't be such a stranger, drop me a line from time to time!

I wanted to thank you for featuring First Virtual in the June issue of *Boardwatch* (p.71-72). I always enjoy your unique take on the issues of the on-line world. In this case -- being fairly close to the subject in question --

I couldn't resist writing to you to point out a few problems with your analysis. Most of them are nitpicking, but a couple were important enough to motivate me to write. First, two major points:

1) (Not so much a point about FV, but about online payment systems in general): You have, in several issues, expressed your cynicism about the whole issue of the "danger" of credit cards on the net. I think you've missed a major point. It is certainly true that the average consumer is in virtually no danger when he sends his credit card over the net in the clear. The worst that can happen is that his credit card is stolen, and his only costs are the hassle of getting a new card and, at most, a \$50 liability if he is slow to report the problem. You're right on the money when you say that this risk is not important to consumers.

However, the risk to the credit card industry as a whole is very serious, potentially even catastrophic. The industry already loses phenomenal sums to credit card fraud, a problem that is growing at an alarming rate even without the Internet. If credit cards become routinely used on the Internet in unencrypted

ed form, this will create the easiest avenue to *LARGE-SCALE* credit card theft that has ever existed. The real danger is that a few crooks will construct automated attacks (credit cards have checkdigits that make them ideal targets for sniffers of net traffic or robots prowling around large disks) that allow them to steal so many credit card numbers that they never need to use any of them more than once, which makes it very hard to catch them. If this happened with any regularity, that would at least mean higher costs to credit card merchants, and could even lead to some very serious restrictions on the use of credit cards on the net at all. First Virtual has staked out a rather unique "middle ground" between the people who say "just send credit cards in the clear" and the people who believe that heavyweight encryption schemes are the only answer.

Naturally, we get regularly challenged from both sides, but to my mind that's a good indication that we're doing something right.

2) Your article said that you found it disturbing that one of our partners is the National Direct Marketing Corporation (NDMC). I hope it will assuage your concern somewhat to know that First Virtual has some very firm policies in regard to marketing and privacy. In particular: We will NEVER give any personal information about you -- including email addresses, phone numbers etc -- to ANYONE outside the company unless we are under court order to do so. Period. We do plan to occasionally send promotional information to some of our customers, but you can opt out of this feature completely if you so desire. When you sign up for an account with us, you are asked a simple yes/no question on this subject, and if you say "no" we will NEVER send you any such marketing information. Even if you say yes, on the rare occasions when we send you such information, we do not give your email address to the advertiser, but only send you something on the advertiser's behalf. And you can change your "yes" to a "no" at any time.

NDMC's interest in First Virtual is primarily as an investor, and also because they want to be in a good position to figure out what kinds of marketing are in fact *acceptable* to the net community. I'm convinced that they understand the negative potential of net-based marketing, and are determined to avoid it, which is why they've taken a very conservative approach. They are a long way from the Green Card lawyers.

Now for the nits:

1) You misspelled the name of our public access server (InfoHaus) in two different ways, including in the URL -- the correct URL is <http://www.infohaus.com>.

2) You describe our transaction process as a "flurry" of email messages. In general, the buyer sees ONE email message per purchase, and then one message when (periodically) we actually bill his credit card. I don't think that one message per purchase really

counts as a "flurry". Sellers get a lot more messages -- but only if they're doing well, in which case they don't much seem to mind! And of course, as your article noted, ALL of these messages are specifically designed for automated processing.

3) You note that lots of people have various claims to be the "first" Internet payment system. I think we can still claim to be the *only* one that is operating today and lets absolutely anyone buy or sell things safely. You don't even need a credit card merchant account, you don't even need special software. It's a fairly strong claim, I think.

Finally, on a personal note, I found your remarks about my esteemed colleague, Dr. Marshall Rose, to be mean-spirited and factually inconsistent. In particular, you wrote, "Marshall Rose has written six books on electronic mail -- all uniformly horrid." The majority of Marshall's books are NOT about electronic mail at all. (I don't happen to think they're horrid, either, but that's obviously a matter of opinion rather than fact.) If you've actually read his books, their diversity of topics should not have been a difficult fact to notice. If you haven't read them, it is truly unfair for you to describe them as "all uniformly horrid". (In fact, I rather like the one that has a picture of me singing with my barbershop quartet....)

Anyway, despite the complaints, I'm grateful for the analysis and the prominent discussion of our system in *Boardwatch*. I always look forward to each month's issue, as you have carved out a really unique position straddling the BBS and Internet worlds. (You might, in this regard, consider pointing out in a future issue how FV or other payment systems might allow BBS operators to sell their content world-wide via the Internet in addition to via phone lines.) Keep up the good work, and please don't hesitate to contact me if I can be of help on any future stories.

Thanks. -- Nathaniel
Nathaniel S. Borenstein <nsb@fv.com>
Chief Scientist, First Virtual Holdings

♦♦♦

Nathaniel:

Pleased to hear from you. You make a crucial distinction regarding the credit card fraud problem. But almost everything I see online touting the problem presents it as a consumer issue in an effort to make it seem relevant and pressing. It causes alarm where none is appropriate.

Certainly on the wider topic of credit card fraud systemically, and the resultant high interest rates we all pay to fund it, I'm with you. But again, I believe the vulnerable points are on the two ends. Robot snoopers snagging credit card numbers off the wire just don't make sense when so many systems are left virtually wide open to those who would browse the hard disk real estate. So encrypting the transaction between sites doesn't seem too urgent to me. The numbers will be found on vendor hard drives.

I am very pleased to receive your assurances regarding National Direct Marketing Corporation. But I remain a little less than reassured. You state emphatically that you will not forward collected information to anyone outside the company. Is NDMC outside the company or inside the company? You do note that you may send promotional mailings from time to time. Assuming these are promotional mailings for First Virtual itself, I don't have a problem with it. But if NDMC mailings are considered promotional mailings I am a bit uncomfortable with it.

It would not be unprecedented. I am continually shocked to learn of the database marketing efforts of local telephone companies. And it is true enough that most banks seem to offer a variety of statement stuffers. But I am unaccustomed to thinking of financial institutions coupled with direct mail marketing firms at all. Financial institutions conventionally have access to very privileged and confidential data on my income, spending habits, etc., and I would feel ill used to have that information shared with a direct mail marketer in any way - however innocent. Please do maintain firm policies on this topic.

With regards to the e-mail flurry, we seem to own very different views and opinions regarding what is normally considered a fairly static quantity - the definition of ONE. As noted in the article:

- 1. Message from buyer to seller**
- 2. Message from seller to FV**
- 3. Message from FV to buyer**
- 4. Message from buyer to FV**
- 5. Message from FV to seller**

Assuming the seller does not need to then send a message to the buyer notifying them that the money was received and that they can pick up their stuff, each party in the transaction sends and receives some quantity of e-mail messages, which cumulatively exceed the standard definition of the quantity of ONE. And looking over the five messages I have listed to cover one transaction, I would still characterize it as a flurry. Flurry being more than a dusting and less than a heavy fall or blizzard.

Your claims to being either "first" or "only" depend heavily on a rather strained definition of what you are first or only at. Given a sufficiently specific set of parameters, I guess we are all unique in God's eyes. I know I see this claim a LOT these days, so it must be some form of accepted marketing practice.

The mini-review of Dr. Rose's books, in retrospect, does look mean-spirited and inconsistent. I retract the statement and would note the high esteem everyone in the online community holds for Dr. Rose. He did do one book on electronic mail, and the table of contents and organization were simply superb - it covered EVERYTHING I wanted to know about e-mail, one of my favorite subjects. In deeper examination, I found it didn't deliver on the topic headings in a number of ways, and I was so emotionally crushed that I fear

it may have colored my unforgivably cheap comment in this instance - a heinous act for which I do apologize.

Lest I give the wrong impression, I am thoroughly intrigued by the problem of online electronic currency and found the First Virtual system fascinating in many respects. I wish you the very best fortune with it. And with regard to BBSs, many of them are ON the net now, and virtually all of them can exchange electronic mail with the domain name e-mail system in one fashion or another, and could conceivably make use of your system. The concept of charging for service or access is just slightly more mature within the BBS community than it is on the net in general at this point, and the interest among BBS operators both on and off the network in making it easier and more convenient for callers to effect purchases is very strong.

We might note that a roundtable discussion on the topic of electronic money will be held at ONE BBSCON in Tampa on Friday, August 18th. In addition to First Virtual President Lee Stein, Dr. David Chaum of Digicash and several others involved in electronic banking and currency will present a 90-minute discussion on current and possibly future systems for exchanging value. Bob Metcalfe, inventor of Ethernet and one of our Executive Advisory Board members will moderate the panel. Further, each of the different systems will present product specific sessions during the conference. We think this is an important topic and that online service providers and vendors of all types share a vested interest in the topic.

Warmest Regards;

Jack Rickard

BBS'S IN CHATTANOOGA, TN?

Dear Board Watch,

I live in Chattanooga, TN. I have subscribed to a total of five BBS's in the past three months. All but one are out of my state and the one which is not out of state is out of my city. I was able to reach one local BBS that claimed to have a list of all the other local BBS's but when I downloaded the list, most of the BBS's which sounded like they might be interesting were printed like this 615\0000000. Now, was that nice of them? If they didn't really have all those numbers, they could have just said so. Anyway, I enjoy your magazine because I find it very informative. I would like to know if you could help me in my search for the real numbers to some real BBS's in the Chattanooga Area. The Area Code for my city is (615). I would greatly appreciate your help.

Some Tennessee cities which are local calls for me are Ooltewah, Apison, Soddy Daisy, Collegedale, Lookout Mt. Red Bank, Hixon, Cleveland, and Tiftonia. Some Georgia cities which are local calls (or close enough) Ringold, LaFayette, Rossville, Flinstone, Rome, and Dalton.

Thank You,
Paul D. Smith
PaulDSmith@aol.com

Paul:

Gene Warner of the FireRight BBS maintains a list for area code 616 that looks smallish but kept in good order. The last version we saw was verified as of March 19th and listed 93 systems in your area. You can obtain this list from the FireRight BBS at (616)842-1471.

Jack Rickard

HIGH PRAISE

Jack,

Love the magazine.

Unlike most of the readers, I have no intention of starting a BBS. It would remove valuable time from work, playing Doom and the minimal social life I maintain.

Yours is not the slickest magazine I've ever seen. No fancy graphics, cutting edge design or glossy photos.

Instead, you respond to nearly every letter you publish, and the writing should embarrass all but Wired because of its honest and blunt reporting. After two issues I'm a real fan. Why? Because your magazine is one of four, with the others, Wired, PC Gamer and Computer Shopper that give any real value to the reader.

I wanted to say something about Windows 95 and the marketing of the Web. While both may seem like good ideas, neither are really practical for most computer users.

Windows 95 has two real flaws. It requires 16 MB and can't be uninstalled. Imagine Joe Newbie with his Compaq or Gateway sitting there, happy over his 4 MB 486DX50 with 2X CD-ROM drive. He gets 95, installs it and has one shot HD. His system is ruined, for all practical reasons, and he doesn't have the skills to even open up the box, not that it would do him much good with the models mentioned.

This is a recipe for disaster. Adding memory may not seem like a big deal once you've been inside the box, but if you haven't, no one's told you that you can mess around inside. It's gonna cost a few hundred just to enter 95's world.

Also, corporations are going to be very slow in adapting a new standard. There are major corporations that still use 286's and Xywrite. To be able to use 95 would cost millions in training and new equipment. I know of people using computing as a major part of their work that had to fight to get 486's and Word 6.0 as a standard. They worked at a publisher at the time.

Business will be in no hurry to get onboard the 95 train, because for some companies it will be facing a capital expense, not just new software to get this new system.

The Web is afflicted with the same problem. If only 10 percent of computer users use their modems and only 10 percent of internet users can access the web, we're talking about a very small amount of people. The web is a good idea, but not large enough to affect the way that people use computers.

Too many people forget that schools still use Apple II's in large numbers, when they can afford the machines. There aren't enough phone lines for the net to be a possibility in most schools. For every power user with a Pentium 90 and a Slip/PPP line, there's some guy happy with Word Perfect 5.1 on his 386SX16.

Microsoft may be successful in pushing 95. But something tells me that this rush to Win 95 is based on hype and not assessing the market. If it were, I think we'd be seeing MS-DOS 7 and Windows 4.0, not Win 95, whenever it comes out.

Unlike the years that it took Windows to replace DOS as the system of choice, the market is larger and filled with people who will not upgrade at every turn. This could be the break point for Microsoft and the entire industry. A rush to Win 95 may sound like a good idea, but only if people can use it. Otherwise, it may join the PC jr., Sony Beta and the Apple Lisa in the graveyard of good ideas that failed in the real world.

Gilliard@capaccess.org

Those who would place security over liberty shall deserve, nor receive either
-Benjamin Franklin

Gilliard:

Those ARE our fancy graphics, cutting edge design and glossy photos. I hear often about our "funky look" and I'm always wounded by it. This IS our attempt at looking like Smithsonian Magazine. Oh well...

With regards to Windows95, I guess we'll see. We've found Windows95 beta releases eminently installable. The 16 MB memory requirement is the most recent in a line of memory escalation that reaches all the way back to the beginning. Next year it will be 32 MB. And someday soon, someone will be writing about "what will we ever do with 64 MB of memory" in approximately the same words they used for 64 kb of memory in the early CP/M days. I take great joy in the incessant march toward more hardware, faster, and cheaper. But I would note that Microsoft itself seems to be backing away from the hype over Windows 95, and a number of users seem to be moving their focus to Windows NT.

Corporations using 286's with XyWrite? First, large corporations didn't start this, and they still aren't the leaders or motivators. Second, what's wrong with XyWrite? I'm writing the response to your letter in XyWrite version 3.14 (several upgrades out of date) and I like it just fine. We can take what we want from the future, and retain what we like from the past.

America's Online System

10

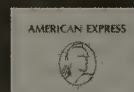
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Regarding the web, all I can say is that you need to do a little webrunning. It doesn't entirely make sense, but it is true techno-hysteria at this point. However hard you calculate, it DOES come up to a sizable number of people. We get a thousand new faces on ours per day at this point. Bottom line, neither Web nor Windows 95 appear to be headed for the graveyard. More likely, they will both leave a trail of bodies lying in their wake who spent too much time pointing out that the tires had an odd tread as they rolled over the top of them.

Jack Rickard

...

Jack, Here's a tickler of modern technology for you:

I've been working with several older people (over 65) in regards to my company's BBS operation for the purpose of providing "Custom Online Services For Today's Business World" (at reasonable costs). We have been going over screen color combinations that make easy viewing for the eyes and also attractive in appearance; as you know the older one gets the harder it is to see Foreground/Background colors.....what do I know I'm only 34.

All the work done in the office has been done via local logons, as we know the screen writes are almost instantaneous. Turning the older generation loose with a modem for remote logons has revealed some comical moments. This group of limited vision geezers nearly drove me nuts a few weeks ago insisting that everytime they logged onto a node remotely that "ERRORS" occurred and they would drop carrier. I asked them to tell me EXACTLY what the error said, for some reason they could never report it as seen on the screen. In alot of cases I was able to monitor the logons locally and noticed no problem at all....after resetting all the modems the "ERRORS" continued for these aging BBS users.

Without better results I thought "It's got to be line noise"; I called USWEST to have the phone lines checked for noise and they reported no problems at all after spending half a day checking my lines back to the central office. Finally I decided its got to be something closer to the callers end...but why was it only happening to my gray hair friends (At this time I'm starting to think like a bumper sticker: "So many Snowbirds, so little freezer space!"). I drove over to a member of this little groups home and fired up his modem and called in to the BBS....it tones and squeals to the groups delight and a connection is made!

"(Error Correcting Modem Detected)"

"DISCONNECT quick before something bad happens!"..... They tell me.

At this point I'm reaching for the aspirin....and reminding them...."YOU HAVE TO READ WHATS ON THE SCREEN", don't just look at it!

Dennis Davis
dennis.davis@resume.stat.com
Sysop THE RE'SUME EXCHANGE BBS
602-941-5480 data

...

Dennis:

Customer support is the most discounted, and yet probably the most critical part of success online. Sysops sit around and regale each other with war stories about new users' "BAD COMMAND OR FILE NAME" reports more or less endlessly. It all points to a learning curve inexcusably steep this late in the game.

That said, you imply that this is peculiar to CyberSeniors. It is not. And in fact, I'm constantly surprised at the number of seniors who take to this technology with great gusto. I turned 40 myself this month, and I find the vision thing to be NOT FUNNY.

Jack Rickard

...

Dear Jack:

I noticed several unfavorable comments recently about your increased coverage of the Internet. So I would like to put in my two cents worth. I have been a great fan and subscriber for over a couple of years, and I have *never* dialed up a BBS. I do however spend so much time on the Internet that my wife is researching any 12 step programs that might help. Your few (and hopefully more and more) pages on the Internet are much better than anything else out there. For example, there is NetGuide and others like it, that apparently take used People Magazine writers, send them to eight hours of computer school and turn them loose on the public. So, for people like me, more internet please. And I really don't mind a few nostalgic articles about BBS's.

Thanks,

Philip A. Hassinger
Hassp@rmii.com

...

Philip:

It's a task to determine what to leave in and what to leave out, in a world where the entire horizon of online activity expands exponentially while you sleep. I understand that most magazines today are surveying their readership to death trying to determine what they want. We do it a little differently.

We determine what WE as writers are interested in, write it, and those who are likewise interested find Boardwatch very useful. Those who don't find they have about 3,600 other newsstand magazines to select from. I don't know that this is a very precise formula for financial success. But it makes it fun to do a magazine.

Realistically, the movers and shakers in BBSland are the ones moving to the Internet with the greatest enthusiasm. We just follow along. This year BBSs are called World Wide

Web servers. Next year, who knows. If it moves online, and we find it interesting, its ours as far as I'm concerned. And historically, we have been just about good enough at it to increase our readership each year for eight years now. We'll just have to wait and see how we do in the coming year. Very pleased we still hit the mark at your end.

Jack Rickard

...

YOU GOT ME...

Jack, Two years ago I started a small bbs, as a direct result of reading your magazine. Now, finally, I find some signs of acceptance from you. You see, I started my BBS with WINDOWS based software called Excalibur. I know, slap me and get it over with. Well, it's been a long hard BETA road. The one thing I could always say to the DOS junkies was "yeah, but I can still run a board and use my computer." Well a couple months ago you reviewed an excal board called windows world, and from what I can tell it met your standards. What you might not have seen is that a sysop of Excal boards can still use their computer!! Yeah, no desqview or OS/2, just install excal and go about your normal computing habits while running a bbs. I've gone through some hardships with excal (and windows), but that's to be expected from beta projects. The guys at excal have always been there for me. I just read your NT review, and I've been considering the switch for some time. Now that I see your review, it's a done deal. I'd like to thank you for FINALLY confirming my belief that Windows has it's place online.

Profslab@kol.com

...

Profslab:

Windows has just enough multitasking in it to make TCP/IP practical on a PC. Windows NT does it somewhat better. We went to Windows rather early for the publishing/graphic tools, though I confess the errors and reboots necessary to run it make it look like a RESET button operating system some days.

Excalibur does have one of the prettiest and most useable interfaces for dialup.

Jack Rickard

...

Howdy Jack,

Happy as I was to see Windows NT given some attention and positive press, I was dismayed by the changes NT seems to have wrought on your April cover's American landscape. Nova Scotia, Baja California, and Vancouver Island have all been annexed by America and three of the five great lakes have disappeared!

There must always be a conspiracy theory, of course, and here's mine: the Baja and Nova Scotia have been obtained as islands (or almost-islands) of forced exile for Apple/Borland/Oracle and Lotus, respective-

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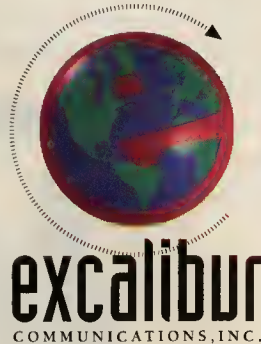
Multitasking allows users to download files, compose and read messages, plus preview images... all while participating in group chat.

Powerful plug-in interface allows users to play games, access databases and navigate through Internet gateways

Excalibur BBS

Excalibur is the bulletin board system taking the world by storm. It was the first system of its kind to run entirely under Windows™ and continues to set the standard of measure. Because Excalibur is built around an accelerated bi-directional protocol, users can upload and download files, chat with other users, and compose messages ... *all at the same time!* Utilizing our proprietary graphical interface, users are able to design their own menus and screens incorporating object oriented graphics, bitmapped graphics, and TrueType fonts. This means no two Excalibur based systems are the same! Advanced error correction and data compression offer reliability and

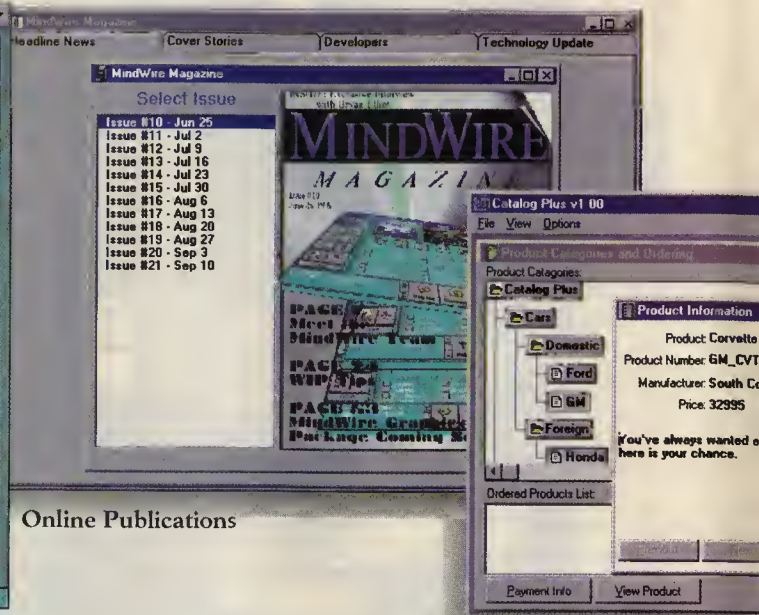
convenience to all users, even those without error-correcting modems. As for expandability, Excalibur offers true Plug'N Play abilities. Imagine doors that are both hassle free and easy to use. By using Excalibur's *Application Programming Interface (API)*, third party developers have created everything from Internet gateways and databases to shopping malls and interactive games. The possibilities are endless. Modem into Excalibur HQ/USA at **918.496.8113** or call 800.EXCAL.BBS (800.392.2522). In Canada, modem into Excalibur HQ/Canada at 905.508.8872. Find out what users worldwide are heralding as "the next generation in BBS software".



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- Windows 3.1, 3.11, NT, 95
- E-Mail
- Messaging
- File Library
- Chat with Photos
- Product Ordering
- WIP Menu Compatibility
- Automatic Software Updating
- Free Customizable Client Software
- Modem/Network/Internet Access
- Free Developers Guide
- Database API

MindWire and MindWire/NT Server Platforms

Imagine a platform with no limits. A platform that takes you beyond the traditional features of a bulletin board system and beyond the limitations of the World Wide Web. Imagine a platform so powerful that thousands of users can access it simultaneously via modem, network, or the Internet. Imagine a platform that harnesses the power of ANY Windows development tool, and also gives you access to some of the most popular and powerful databases in existence today.

If you have been looking for the ultimate platform to provide a graphical online service, your search is over. MindWire is a Windows based communications platform for interactive applications operating over modem, network, and the Internet. MindWire allows you to put information online the way

you want it presented.

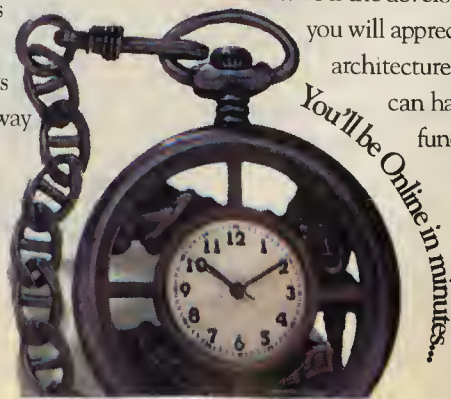
For real server power, DCN offers MindWire/NT, a fully Win32 (32-bit) multithreaded server intended to run on the Microsoft Windows NT Server operating system. Its primary objectives are to comfortably support larger volumes of simultaneous users and take advantage of higher end server hardware. Some of its powerful features include a Service Control Manager interface, hooks into the Windows NT Performance Monitor and harnessing Remote Access Service (RAS) to support up to 256 PPP users on a single server.

Developers Love MindWire

MindWire is the developer's paradise! As a developer, you will appreciate the NO LIMITS architecture behind MindWire. Now you can harness MindWire's high level functionality to provide powerful

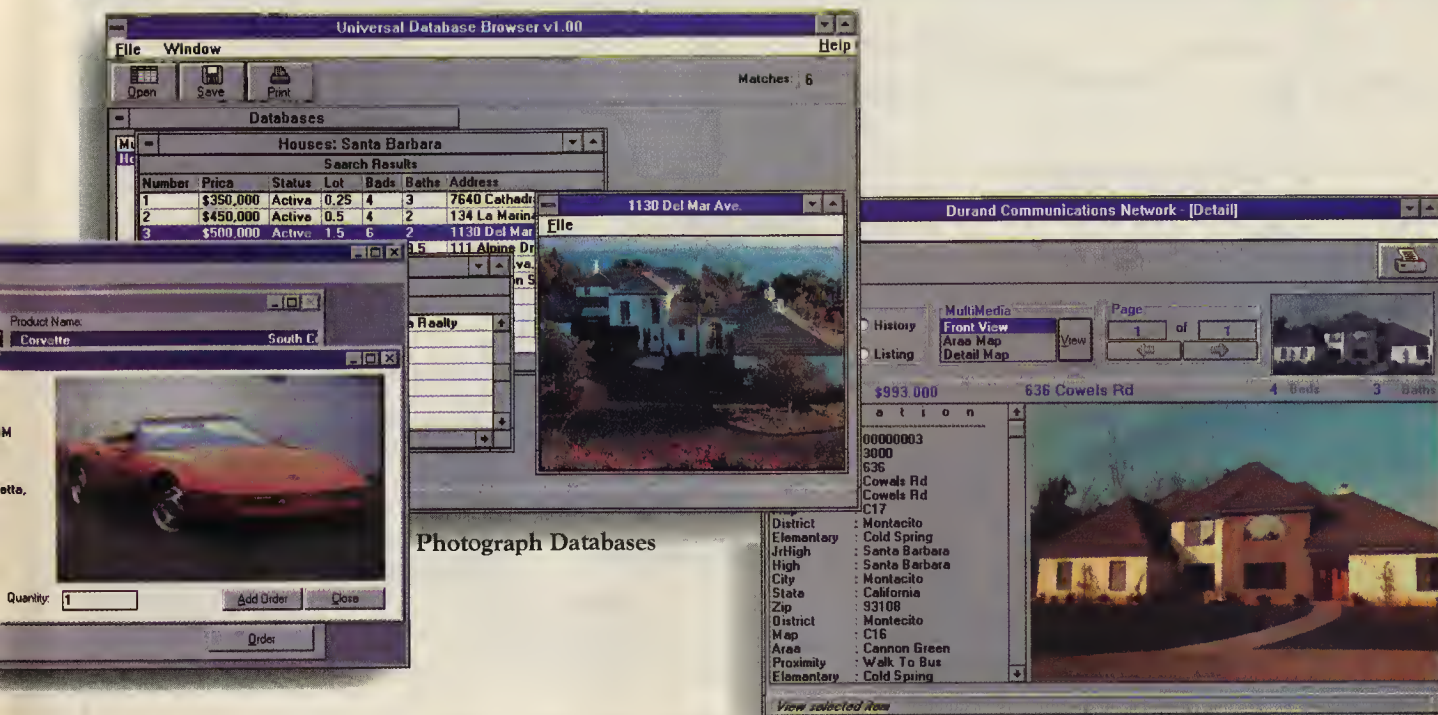
MIND

The Ultimate Windows Plat



With No Limits

MINDWIRE
4-line system
(Introductory Price!)
Only \$295
Includes Internet
Connectivity



Photograph Databases

Real Estate MLS Systems

WIRETM
form for Online Services

SQL database access through ODBC, OLE and any Windows programming tool you desire. Begin developing your dream service today. The Developers Guide and Database API are included.

The Application You Want

MindWire is the ultimate platform for interactive multimedia applications. Out of the box, MindWire comes with several groupware applications such as E-Mail, Messaging, Chat, and this is just the beginning. To help you get online fast, DCN has created an entire warehouse of graphical applications such as Catalogs Plus, RealCLASS MLS, The Publisher, Classified Ads, Calendar, Chess, News Flash and many more.

The Database You Need

For those who want to put a photograph database online, DCN has created QuickBASE, the universal database browser which works with any ODBC compliant database

engine for Windows such as Microsoft Access, FoxPro, dBASE, Sybase SQL, or Microsoft SQL Server. No matter what your need, MindWire can deliver. If your mind can conceive it, MindWire can create it!

Don't risk your business with dead-end software. The future is here, and the future is MindWire! Call us today!

MINDWIRE Wins 3 Major Awards



"BEST Windows Product"
"BEST New BBS Software"
"MOST Innovative New Product"

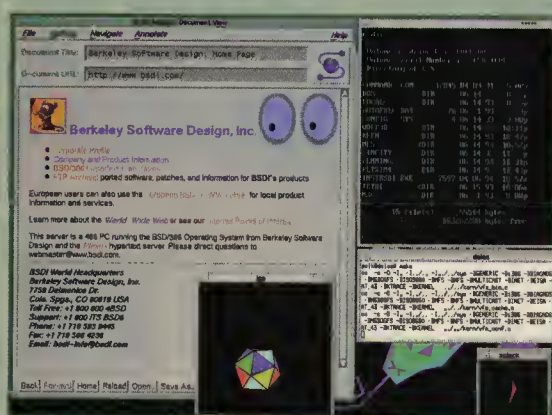


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BSDI Internet Server

Built for the Highway



INFOWORLD Internet Server Product Comparison

"BSDI Internet Server was the clear winner—easiest to setup and administer... [and] is extremely affordable. BSDI's support people were patient with our calls and offered extra tips for system performance."

INFOWORLD 1/30/95

The INFOWORLD Score

BBN Internet Server (BSDI Internet Server plus hardware)	7.6
BSDI Internet Server	7.0
Sun Netra Internet Server	6.3
SlackWare Professional	5.9
SCO Global Access	3.5

Internet ready. Finally there's server software built to connect with the Internet. The BSDI Internet Server integrates our complete 32-bit BSD/OS operating system and its bullet-proof TCP/IP with PPP and SLIP, global E-mail, FTP, Gopher, Archie, Netnews, World Wide Web, Netscape Navigator, and more. All you need is a 386, 486 or Pentium PC, and you're ready to deliver full-featured Internet gateway services.

The Internet server anyone can configure. The BSDI Internet Server is designed for configuration and operation so easy that even someone who's never used UNIX before can get a full-function Internet gateway and World Wide Web (WWW) Home Page up and running in less than an hour. Plus, built-in router capabilities connect directly to a modem, or – saving the expense of an external router – link directly to a 56K or T1 line with minimal extra hardware.

The better Internet server. Now you can confidently deploy industrial-strength Internet connectivity throughout an organization of any size. The BSDI Internet Server includes 60 days of free telephone support and a 60-day money-back guarantee, so you can establish your Internet presence with no risk. To receive a free reprint of the INFOWORLD Internet Server Product Comparison featuring the BSDI Internet Server, **call 1-800-800-4273 today!**

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BSD
BERKELEY SOFTWARE DESIGN, INC.

This product includes software developed by the University of California, Berkeley and its contributors.

ly. Vancouver, on the other hand, looked like a pleasantly pastoral alternative to busy Redmond. The lakes present a greater analytical challenge, but perhaps the broad distribution of all those NT installation disks has caused a shift in the earth's orbit, instigating global cooling (this would seem to be supported by the extremely northern sunset). Why the northernmost lake remains intact, however, is inexplicable. On the other hand, Lake Norda, I mean, the Great Salt Lake, remains intact, so apparently Novell is still floating some people's boats.

To be serious for a moment: more Web! more Internet! more NT! And thanks in particular for the superb work of Jim Warren and Lance Rose on government and legal issues. Now if only you could get an exclusive on Dvorak, and liberate him from the otherwise bland EFKAZ (Empire Formerly Known As Ziff).

Carry on,
Mark Tough
MarkTough@aol.com

PS: I'd just as soon leave it in, but if the Ziff raz gives offense, you can pull that sentence without ellipsis.

♦♦♦

Mark:

It gives me no offense. I wouldn't presume to limit John C. in any way, and I like much of what Ziff does. I'm not a very competitive person I suppose. In fact, one of my heroes, Bill Machrone at Ziff, is ostensibly working on some sort of new Internet title for the new Ziff Publishing group. It is my opinion that the zenith of PC Magazine's trajectory was when Machrone was the editor.

As for us here, we'll work on our map skills. Actually the web has enabled something I've long wanted to do. I have a fascination with precision in two areas - where I'm at, and what time it is. I've been having great fun building a hidden function into our web page. If you notice, on our home page there is a small icon of planet Earth with the sun coming up over the horizon. If you click it, you get a rather pretty shot of the earth rising above the horizon of the moon. If you click that, you get a larger shot of the earth. From there, a shot of North America by satellite, and thence to a series of earth observation shuttle photos taken from 115 miles up of the Colorado Front Range and the Denver metropolitan area. These progress to a series of high, medium, and low altitude aerial photos of our specific area and building at 39 degrees, 36 minutes, 31 seconds North latitude, 105 degrees, 05 minutes, 45 seconds West longitude. Finally, our building itself, which leads you to the now familiar floor map of the office. You can click on each office to get a photo of each employee, send them e-mail, or - in most cases - access something or other (ad rates from ad reps, writer guidelines from editors, subscribe online in the business office, enter a change of address, etc.). So we're working on the web and our geography at the same time.

Jack Rickard

WWW AT TOP OF HIT PARADE

It shouldn't go without notice that WWW port 80 traffic in packets went to the top of the entire NSFNet traffic listing during the month of March - exceeding all other traffic including ftp. It accounted for 19 % of all packets and 24 % of all bytes.

Although the NSFNet is winding down, these statistics are relative ones and probably represent the situation across most of the Internet. Congratulations go to Tim Berners-Lee and the browser development teams who have brought about a real revolution in an environment that was already revolutionary, and who are continuing the effort through the WWW Consortium.

Tim will keynote the Society's International Networking (INET) Conference in Hawaii at the end of June.

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Reston VA USA

tel: +1 703 648 9888

fax: +1 703 648 9887

http://www.isoc.org

♦♦♦

Tony:

My understanding is that WWW hit the top of the heap with regards to packets, but remained slightly behind FTP in bytes. So now that NSFnet is no more, has the Internet Society developed a position on how we should count such things in the future?

Jack Rickard

♦♦♦

Jack,

As always I am enjoying your great magazine. I find it interesting fun and informative. Just plain good stuff....

I was interested in your comments about OS/2 Warp, and IBM's responsibility to their customer(s). You are absolutely correct, if it's painful, (then we hurt). What's this junk about calling in the troupes if we have trouble. Your point was well taken, we shouldn't have to call for help. It should be simple, painless, and work well after installation.

Personally I'm rather tired of all the junk software that has been dumped on the public. I'm sure there is some good software out there somewhere? (grin)

I purchased a CD Rom the other day \$49.95 took it home, went to install it on my machine, a rather nice one, 8 meg of RAM, and found that the program required 598K to run. Well poor ole me, after loading OS/2 and some other necessary drivers low and behold I only had 560K left to operate in. (Yes, I know it's my problem right)?

My point, after all the dust is settled, when are the software weenies going to under-

stand, we don't want half-baked, full of bugs, useless software setting on our shelves. We want quality, excellent software, painless, and productive.

Buying software is a little like buying a car without the tires. Oh, it works 90% percent, but you'll never need that other 10%. Let it eat your system, not load into RAM, lock up in the middle of a productive session, or not install at all. I am specifically speaking of OS/2, Tetris Gold, and Windows 3.1 respectively. Hey, and this stuff ain't cheap.

Has anyone out there grasp the concept that grandma doesn't give a rats about DOS, OS/2, Windows, Installs, Utilities, or any other of that technical stuff. All she wants is a productive machine that when turned on will do the particular job(s), balance the checkbook, write a letter, or make a birthday card. And she doesn't want to have to plug in a CD Rom or Floppy disk to get the job done.

I guess my wish is that somebody cared about us customers. My 15 year tenure with computers has been less than user friendly. And I'm not sure has gotten any better. (try installing anything on a computer, usually it isn't simple) Makes one think hard about Plug and Play.....

Anyway Jack, I had the same experience with OS/2 it crashed my system. Unlike you though I did purchase OS/2 Warp, It installed easily from a CD Rom, and has worked fairly well, although not bug free on my system.

It did not install however for my friend who purchased the 3 1/2 disks as you. His crashed also. I was lucky I guess.

Hey! that's it L-U-C-K.....

Some bug free code.
10 cls
20 Print "Excellent Software = Luck"
30 end

Thanks for listening, and keep up the good work. You are contributing to the enlightenment of all.

Portr@software.hill.af.mil

♦♦♦

OS/2

Jack,

You have probably heard quite enough about OS/2. However, in reference to your difficulty, you probably experienced a "trap" error. I've run OS/2 since version 2.0 beta, and was the first sysop to run a DOS-based BBS (The Bin BBS, 503/636-3855, Searchlight) under 32-bit OS/2.

A trap error is generally caused when the memory space of the kernel is violated. It is theoretically not possible for an application to do this, although I have seen occasions where device drivers can cause traps on a reproducible basis. But most often, a trap is caused by a memory error - bad RAM, or a motherboard whose hardware which deals

with RAM is going bad. (You can tell if yours is a memory error by checking the top line of the data dump. If the TRAP: line ends with the letter d, it's a memory error.)

Your motherboard was admittedly elderly. Although what appeared on your screen seemed to be gibberish, it is actually very detailed information concerning the type of trap, and information on the memory addresses of everything involved in the trap. This looks very unfriendly, but is a lot friendlier than Windows, all things considered, since it permits you to contact IBM with very detailed information concerning the trap. Contrast this with a Windows error message, which (if you're lucky) advises you either to reboot the machine, or that an "Application Execution Error" has occurred. Neither of which are particularly helpful. More often, the system simply locks up leaving you without a clue as to what happened and resulting in you losing everything you were working on, since the time of your last save.

IBM in my experience has been particularly responsive. At the time 2.0 was released, I was on a first-name basis with many of the senior techs down in Boca Raton, helping them iron out the problems I was having with their com.sys and vcom.sys drivers. Through the efforts of IBM and sysops everywhere, OS/2 has become, in my experience, a particularly robust environment for running a BBS at the same time as using my 386/40 with only 8MB RAM for practically all of my own applications as well. And I know, that often unlike Microsoft products, if I ever do have a problem I will have a very concerned technician on the line at IBM via a toll-free number who will Airborne Express me a bug fix at no charge. Where Microsoft typically notifies me that there is no fix, but Microsoft is aware of the problem and will fix it in the next version. Or they'll try to charge me for a bug fix, or maybe let me download it long distance from their BBS in Redmond.

Aside from the support from IBM itself, OS/2 has a cadre of loyal users called TEAM OS/2 who volunteer their time and efforts to promote and support OS/2 on a local level. From a BBS standpoint this may not seem uncommon - look at all the people who rally behind their BBS software, for instance. But in the context of a *commercial operating system* this is indeed odd. IBM has something going with OS/2. Give them a chance.

One other point to leave you with: What's more frustrating to a user? Having difficulty installing a product, but once it's installed, being free from constant crashes and having the security of knowing that if one application goes down, the rest of the applications will stay up - or never knowing when the next crash will occur, which *will* result in the system becoming unstable? I'll take OS/2 any day. I'd consider Windows NT - if you buy me the hardware required to run it. Netting around \$900 a month after taxes (before all expenses), my budget doesn't even come close. Maybe if I quit my job at the bank and started selling OS/2...

Rob
Prophet@pdx32.transport.com
The Bin BBS
503/636-3855
Lake Oswego
The Oregon Rainforest

♦♦♦

Rob:

My motherboard is a very stock 486-33 MHz. If OS/2 only works on specific motherboards, we should be told which. I'm not too concerned with how good IBM is at interpreting error codes. If I can't install it without them, it won't make it. Period.

Jack Rickard

♦♦♦

Jack,

Where's Harley this (April) month? We hope he's not ill. Maybe he needed some time off. We hope he's back with Wendy Murdock next month. Their column, "net.imperative" is my favourite Board Watch read, *after* the offerings of the "editor rotundus" of course. Keep "givin' it to 'em, Jack." Gees, with citizens like you, no wonder America is THE world power.

One has to recognize that you have quite a stable of very high-quality writers; I'd like to single out (besides the former) Michael Irwin for all the tips he's given us on getting our best face out to the world through his seemingly-endless tips on constructing Web pages. There certainly is a certain thrill to follow a few of his easy steps and see one's name "up-in-lights" on that first home-page. I couldn't have done it without his help and here publicly thank him for making it possible.

More thank you's to Chris Babb for the insightful site addresses published each month. I try them all and am never disappointed. His (is "Chris" a he?) tip on downloading icons to pretty-up our pages was a jewel. I contacted <http://www.uncg.edu:80/~rdralph/icons/> and -- like the proverbial pig-at-the-trough -- d/l Randy's stars, bells and whistles! As requested, I *did* phone these good-old-boys to thank them personally, but only got their answering machine. After leaving e-mail to Randy, he got back to me and reiterated all they want is for guys like me to tell the world where we got all the good-stuff. Hey, am *I* telling the world?

This brings up a point that makes me proud to be a part of our online community. People like Randy, and others, *giving* valuable art-work away for free. This is what we call "sharing." My wife watches the 6:00 news and sees reports almost-daily about how the Internet is loaded with smut and unsavory characters looming at every terminal waiting to devour some unsuspecting newbie. I tell her this is not what I see. I'm on the Net, I use the Net and I contribute to the Net. It's a "community" of which I'm a part. Boardwatch Magazine, its editor rotundus and writers and guys like Randy Ralph are making it a kinder, gentler place to visit.

Keep up the good work, Jack

Regards,

Bill Irvine
wji@islandnet.com
<http://www.islandnet.com/~wji/wji.html>

♦♦♦

Bill:

Harley got rich on his Internet Yellow Pages book and moved on to bigger and better things than Boardwatch. But the past couple of months have forced us to look hard at what we are doing and the increasing zoo of writers we have doing it. After reading through the past six issues and studying on the matter a bit, I've come to the same conclusion you have. I honestly don't know how it happened as we didn't have a very organized program to build it, but we have somehow lucked into a hell of a stable of good minds in here, working for peanuts and doing an incredible job of it. I'm a little uneasy as I don't know for sure how we got here, why they do it exactly, or how to keep from losing it. But it seems like with each issue they spread their wings a little more and we wind up with a better magazine because of it. It's a little crazy, but I'm actually thinking of expanding it a bit...

Jack Rickard

♦♦♦

OS/2

Jack:

I subscribe to your publication and enjoy it every month.

You do yourself a disservice to "flush" OS/2 so quickly. Give it the same evaluation you would want if it were someone reviewing you for a job, and I think you will come to a different conclusion. It really is, [right now, at least] the best operating system for the PC today. Not to say there aren't others out there with merit, because there are, but OS/2 is one very good system.

Regards,

Bob Bowker
Rnbowker@basalt.com

♦♦♦

Bob:

I'm always doing that disservice thing to myself. I hate it when I do that too, but it's getting to be habitual.

Jack Rickard

♦♦♦

WEB SITE SETUP

I was reading your March editors notes page 21 (Jonathan Abbey). In your reply you briefly mentioned your cheap web setup. I have a web site <http://www.intelligent-health.com/ihri/>. I am now using a server

that is deficient in many ways. I would like to be my own server without being ripped off with the high price of not knowing the game. Could you please tell me how you did it, what equipment, software, lines, costs, etc. so I can get underway. Also how to interface a bbs with the website.

I know I'm asking alot, but after reading 30+ books I only find myself even more confused. You and your magazine is the only source that seems to know what really going on. Your editorials make sense, but I can't wait for the one on this topic, money is going down the drain as I type, Please Help!

Gods speed,
Rick Nappi
Drnappi@intelligent-health.com

Rick:

See our June, 1995 issue on WebSite. We're planning a low-cost UNIX version of the same article for a future issue. You're not alone in your quest.

Jack Rickard

Hi Jack! We met last year at ONE BBSCON in Atlanta, I'm hoping to make it again this year to Tampa, but am not sure yet. Anyways my company is in the process of working out a 5-year plan. We have been operating a BBS related to the agriculture industry for the last 5 years, and since switching away from MajorBBS and to Osiris XLT we have FAR surpassed their last 5 year plan, so it's time to make a new one!

We are currently run a 16-line system with 1-800 access across Western Canada full RIP graphics (Osiris is great for this), local LAN access to 300+ computers in our Head Office, WAN access from our Grande Prairie, Lethbridge, Edmonton, Red Deer, Camrose, Vancouver, Regina and Winnipeg offices. (our offices are not part of the 16-line system we have a stand-alone local WWW (file://...) system for them.

Well that tells you a bit about where we are currently. What I have been asked by my company is "Where is the online industry and especially the BBS industry going to go in the next 5 years?"

After pondering this for a couple of days or so, someone said "Ask the guru!" so here I am asking for your professional opinion on this, where do you see the future of BBS's heading?

Thank you oh great guru!

Kevin Kindle
k.kindle@awp.com

Kevin:

Five Year Plan? We operate on a five-week plan here. I would love to be able to develop a five month plan, and you want a five year

plan? I recently overheard someone at Internet World bemoaning that these were the "dog years of the Internet." That's where each year of technological development now seems like seven people years.

That said, we are watching several areas rather avidly and have been for several years:

INTERFACE. For the next "circle" of people to successfully make the trip online, the learning curve HAS to be reduced. That points towards graphical interfaces and the Windows operating system.

CONNECTIVITY. True world-wide communities want to form up, and long distance telephone charges don't work in this scenario. Flat rate Internet connectivity is a key to forming truly national and international markets.

OPERATING SYSTEMS. Migration of an online interface and Internet connectivity directly into the operating system again shortens the learning curve for new users. They don't want to install a combination of ODI, WINSOCK, Clarkson packet drivers, and IP gateway addresses. They want to click on the little icon of the mailbox and read messages. And it's not an unreasonable or specious desire. They should have it.

Right now that points to World Wide Web/HTML interfaces, Windows NT and Windows95, and T1 links or better to the Internet. We look for some alternatives to WWW as well as WWW extensions to support more interactive communities and more substantive database functionality. Some UNIX alternatives may be tamed and made useful for organizations capable of supporting them.

Jack Rickard

INTERNETMCI

Hi Jack,

This may be my second message to you, if so please ignore it. This emailMCI package has too many features for a novice.

Just thought you would like to have a comment about InternetMCI.. My software arrived a few days ago.. MCI/Netscape created a customized V1.0.. I have a T1 at work and I thought that 14.4K was really going to be slow.. not so.. Its pretty fast and very smooth.. Installed Telnet and surfed over to Boardwatch.com.. save on those phone bills!

From now until June 30th is \$19.95 for unlimited time..after then its \$9.95 for 5 hours..I am wishing that MCI starts a flat-rate unlimited time program since their software does not indicate how much time is used up.

IMHO - They did a great package--well worth it!

PS> I DO subscribe - Keep up the good work!

Bruce Donnally
Bruce.Donnally@internetmci.com

ISP ON A SHOESTRING

Your June 95 issue arrived just in time. After fumbling around since the idea took root with the January (or was it february???) Aquila Workshop, of creating an NT based rural ISP site, The Software Farm website - <http://www.softfarm.com> - is finally running. To get this thing off the ground, I got an analog line strung the 40 or so miles up to Aquila, which is tied to an IPAD port. This was an experience in absolute joy because the line connects through GTE and Ameritech services. After a week of repair calls, starting as soon as I was informed that the installation was complete (HAH!), we finally got a fairly solid connection. I want to move to a digital line soon, and expect that to be an adventure too.

The server is an NT 3.5 Server (486DX2-80, 16M Ram, 1 GB drive) using Emwacs HTTP. After reading your article about Website, and talking to Steve at Aquila, I expect that we will want to migrate as well before too long. It seems like it took amn eternity to figure out that (simple stuff is always the most subtle) NT Remote Access only supports PPP as a server, and SLIP only as a client. Win95 was a piece of cake as a client, but Trumpet Winsock for Win 3.1x was a bear, trying to configure Trumpwsk.ini and Login.cmd to get a successful connect from a dialup client. I finally got that working last week, and we is now an ISP!!!

I look forward to Boardwatch, every month, because I keep wondering where the net is going. Your perspective and observations on this subject sure stir the thought processes, because I also think we have got a very large elephant by the tail, which is a difficult position from which one thinks they might be able to lead, not follow.

BTW, I loaded and configured my POP only yesterday, so you are the honored (?) first addressee of mail from the "Silicon Cornfield". Thanks for the mag, and the encouragement.

John Foster
johnf@softfarm.com

John:

Pleased to learn that your program to extend Internet Access to the rural areas of Illinois has born fruit. Good luck with your venture.

Jack Rickard

WE PRACTICE WHAT YOU PREACH...

Jack,

As software publishers it is necessary that we stay at the cutting edge of this ever changing industry. I find it encouraging that we have implemented your ideas by the time you publish them. Your June article on how to build WWW site covers EXACTLY what we do.

We run an NT webserver using the new Website software.

We are the publishers of SkillMaster and supply our software directly from our Web Site.

SkillMaster is a Computerised Test Authoring and student administration system for training evaluation and student testing. Interested people visiting our site only need to click on a button and the SkillMaster Lite version software is downloaded directly to their computer. It's that easy.

The SkillMaster Tutorial and User Guide is also available on the same Web site in electronic format and can be printed out in PERFECT copy off any computer through the use of the supplied Adobe Acrobat Reader software.

We see excellent potential for distributing our software quickly, efficiently and economically over the Internet.

You are welcome to visit our site and see how this works at <http://www.what.com/skillmaster/>.

Lane du Toit
lane@what.com

SkillMaster Software Incorporated
Suite 400 - 2030 Marine Drive,
North Vancouver, B.C., V7P 1V7
Tel.(604)987-8108 Fax.(604)980-9879
Lane:

We're pretty excited about NT as a server platform on the Internet. In this issue you will note that Netscape is test driving their version of a server on NT, and Sun has a version of Java that runs on NT. And I am seeing a lot of web sites centered on product support to some superb effects. As noted in this issue, I located a Windows NT driver for an STB Lightning VL video card on STB's web site in hardly a minute, and had it installed

and running in five minutes, starting with just the name of the company - after their normal support telephone hours. I think you'll do well with your project.

Jack Rickard

♦♦♦

NEW NATIONAL PARK SERVICE

Dear Mr. Rickard:

I have been reading your *Boardwatch* Magazine for some time now and thought I would provide some information that you might find interesting.

A group of us from the National Park Service (NPS) have been creating the official NPS website. The new site can be found at <http://www.nps.gov>

The NPS website has been created with the average "at home" Internet user in mind. Meaning, we have fewer graphics than might be expected from the National Park Service, but this will improve as time goes on. We will be adding more graphics as time allows. We are requesting photos and slides from all the parks so that we can create .gifs to put up on the net.

We have not, however, scrimped on information that the public will be very interested in obtaining. There will be opportunities for Mr./Ms. Public to visit a park, get camping information, and even get up-to-date weather information for a particular park. Year after year, the NPS has been identified as the most appreciated government agency and we pride ourselves on addressing public needs.

We have also provided information about the park Service itself. If someone is interested in the activities in a particular field, such as

Archeology, Wildlife Biology, Air Quality in parks, or information on the Civil War, we have provided those links. A person will be able to spend hours surfing through our pages. We even have locations that people will be able to ftp Geographic Information System data to their computers.

As with most Web pages, we are constantly improving and updating them. We have tried to stay away from the bureaucratic trap that other governmental agencies have fallen into when building their pages. The information we provide is aimed at the general public. If scholars are interested in a particular aspect of the Park Service, we have that information as well.

Please visit our site and tell us what you think. If you have any questions, please send email messages to webmaster@nps.gov.

Sincerely,

Patrick Gregerson
Chief of Planning
National Park Service
National Capital Area
email: Patrick_Gregerson@nps.gov

♦♦♦

Patrick:

I do indeed find it interesting. A National Park Service site sounds like a super idea, particularly if you could eventually sport a photo portfolio of park shots, calendar, and so forth. I'll have a peek soonest.

Jack Rickard

♦♦♦

BOCA RESEARCH ACQUIRES HAYES MICROCOMPUTER PRODUCTS

In a move that officials say will result in a "formidable presence in the marketplace," Boca Research Inc. and Hayes Microcomputer Products, Inc. signed a letter of intent which will result in the acquisition of Hayes by Boca.

The company resulting from the merger will be called Hayes to "optimize the name-brand recognition worldwide."

Inside sources say Hayes was eager for the merger because it means a well-run production facility and an infusion of much welcomed capital. The merger means that Hayes will be able to pay off the creditors who have lined up since the company filed for protection under Chapter 11 of the Bankruptcy laws. Boca was anxious to acquire the strong name recognition and technical know-how of Hayes.

It is estimated that Hayes has 1,100 employees and Boca approximately 265

employees. At press time it was not known what effect the merger will have on the number of employees at either company.

Under terms of the agreement, Hayes shareholders will receive 1.685 million shares of Boca Research common stock and "the right to receive certain contingent payments based on the future earnings of the merged company." The transaction will also provide the financing for Hayes to complete its Plan of Reorganization to pay all creditors claims in full with interest.

Hayes Microcomputer Products, Inc. filed for voluntary Chapter 11 Reorganization in November, 1994. A Plan of Reorganization was filed in May of this year. This plan will be updated to "provide for payments of interest in connection with payment to unsecured creditors of their claims.

Both parties expect the agreement to be finalized by the first of October subject to financing and confirmation of the Hayes Plan of Reorganization by the Bankruptcy court.

Dennis C. Hayes will become the largest shareholder in the new company. According

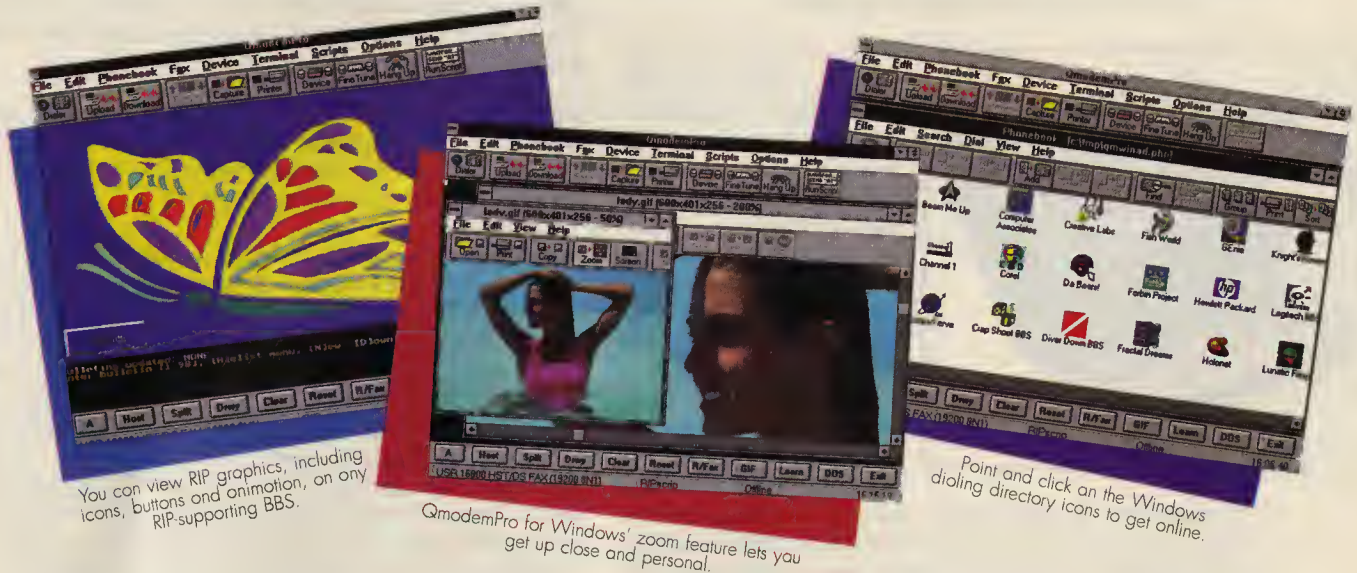
to a press release, "he will also be named a Director on the Board and serve as Vice Chairman with responsibility for strategic planning, corporate communications and intellectual property management." Tony Zalenski will be named President and CEO of the combined companies.

"I am exceedingly pleased to welcome the industry standard name, Hayes, to join us. Boca's strong financial position, cost-effective manufacturing, ability to integrate technology, build effective business partnerships and financial expertise will be dramatically fueled by Hayes' name-brand recognition, technology, distribution base, market know-how and expansive international presence in Europe, Americas and Asia Pacific," said Tony Zalenski, President and CEO of Boca Research, Inc.

In calendar year 1994, Boca reported revenues of \$83.6 million and \$27.3 million (unaudited) for the first quarter of 1996. Hayes reported revenue of \$246.9 million for the year ended September 30, 1994 and \$135.2 million (unaudited) for the six months from October, 1994 to March 31, 1995.

WARNING!

This Product Contains Material Of An Extremely Graphic Nature.

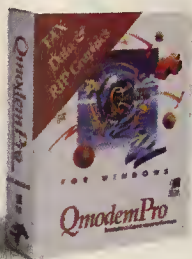


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TECHNOLOGY UPDATES

By Jim Thompson
Western News Service

Unlimited Systems Corporation, Inc. has introduced a new member to its KONEXX Konnector family of products. The KONEXX Konnector Model 111 provides high speed modem connectivity (28.8 Kbps) to virtually any digital, PBX, multiline and hotel telephone. The Model 111 is compatible with V.FAST/V.34 modems and applications.



This is one of the best devices I have found for easy access to telephone lines. There have been dozens of times when I would not have been able to transmit a story or important bit of data without it. Best of all, it is extremely easy to use. Just unplug the handset cord from the telephone, plug in the cord from the KONEXX Konnector Model 111 and plug the handset cord into the

Model 111. Another cable runs from the Model 111 to your modem. You can leave the KONEXX attached and use the telephone as usual. It is shipped with a 9-Volt battery and an AC adapter and weighs 4.6 oz. with the battery.

This is one item that I never leave home without.

Retail Price: **\$159.00**

Contact: Unlimited Systems Corporation, Inc.
(619)622-1400

...

Attachmate(R) Corp., has announced EXTRA! Personal Client 6.0 for Windows, Windows NT and Windows 95 which, according to the company, provides automatic navigation capability and built-in global access to any host, access to the Internet, full TCP/IP connectivity and applications, remote access, database access, object oriented tools and software distribution.

EXTRA! Personal Client will reportedly automatically navigate the user through screens, trigger events, launch Windows or enterprise applications, retrieve information and update and integrate it via OLE 2.0 into other Windows desktop applications.

EXTRA! Personal Client 6.0 will contain both 16 and 32-bit versions of Windows on the same CD, for **\$425 (U.S.)**.

Contact: Attachmate Corp., (206)644-4010 voice,
(206)747-9924 fax

...

InfoImaging Technologies Inc. is shipping 3D FAX which enables users to exchange binary files via standard fax transmission. The new product makes it possible to send and receive editable or executable files, not just black and white images of a document or picture, via standard fax. Since 3D FAX employs compression and "advanced image processing technologies," fax transmission time can be reduced by 90% or more. This means that a 30 page document may be transmitted as a single page of 3D FAX data.

Other benefits of 3D FAX include sending color pictures or even multimedia files via fax, elimination of the need for optical character recognition and ease of use over other means of file transfer.

3D FAX uses a proprietary data transformation technology called "infoimaging" that can place as much as 40 KBytes of compressed data on a single page. This compressed data can be sent from a PC via fax modem and fax communications software directly to another computer with fax capability, or to a fax machine. When printed by a fax machine, the 3D FAX transmitted file appears as visually uninterpretable, black and white rectangular grids referred to as an "infoimage." A printed infoimage is simply scanned using an optical flat-bed or inexpensive hand scanner into a computer. 3D FAX software then restores the transmitted file to its original content and format and automatically opens it in the software application in which it was created.

Contact: InfoImaging Technologies Inc. (800)966-1140
voice, <http://www.infoimaging.com>

...

Hewlett-Packard's OpenMail has been enhanced to allow customers to send and receive multimedia files over the Internet. Although OpenMail has supported the simple-mail transport protocol (SMTP) and Internet routing for some time, it now adds support of the MIME(1) standard as well as automatic UUEncode/decode capabilities. This allows OpenMail users to send and receive multimedia and other binary items over the Internet without translation or formatting problems, while still retaining the rich functionality of supported clients, including MSMail, cc:Mail and the OpenMail GUIs.

Contact: Hewlett-Packard Company, (800)637-7740
voice, <http://www.openmail.external.hp.com>

...

Summatec Computer Corp. of Vista, Calif. has announced its new Mirror-Link removable system which provides the speed and capacity of a hard drive in a format that loads and ejects just like a floppy disk.



Mirror-Link consists of a high performance (13.3 MB/second) and high capacity (up to 1.3 GB), small form-factor hard drive sealed in an impact-resistant cartridge just 3 x 5 inches in size. All required software and electronics (SCSI or IDE) are included in an external or internal docking station. The drive is capable of withstanding shocks up to 100 G's while operating and 200 G's in non-operational mode. A "spin down" feature ensures that no data is lost or damage done during the ejection procedure.

This is an actual hard drive (IDE or SCSI) with all the speed and performance of a hard drive yet with a weight of only seven ounces.

Mirror-Link cartridges are available in 520 MB to 1.3 GB versions, with retail pricing planned between \$795 to \$1,262 respectively. Complete systems (cartridge and docking station) range from \$1,073 to \$1,585.

Contact: Summatec Computer Corp. (800)335-7573

...

Horizons Technology, Inc. (HTI) of San Diego, Calif., has introduced the TrueMotion-S Compressor, a software-only program that allows CD-ROM title developers and other multimedia professionals to compress video on their existing desktop computers. With a suggested retail price of \$499, the TrueMotion-S Compressor runs on a 486/33-based PC or Quadra 800 Macintosh. It also provides video editing and quality control capabilities through an intra-frame compression algorithm. On higher grade machines such as Pentium-based or Power Macintosh computers, TrueMotion-S provides 20:1 compression time ratio.

The TrueMotion-S Compressor is based on an intra-frame algorithm, a process in which every frame is individually compressed without referring to a preceding or following frame. This method contrasts with most other software-only video compressors which incorporate "inter-frame algorithms," which means they employ a complex strategy of looking at each new frame and passing on data for only those aspects of the frame that have changed.

Contact: Horizons Technology, Inc. (800)828-3808 or (619)292-8331

...

Blue Sky Software Corp. is now shipping WinHelp Office, a help authoring solution which provides Help authors with the tools for professional Windows Help development. WinHelp

Office includes several products including RoboHELP, WinHelp Video Kit, WinHelp Tool Kit, WinHelp HyperViewer, Mastering WinHelp, and Moving to WinHelp '95.

RoboHELP guides Help authors through the entire process of creating Help systems and electronic hypertext documents, from standard Help features such as jumps, topics and popup windows to advanced features such as macros, secondary windows, and multiple hotspot graphics.

The WinHelp Video Kit provides everything Help authors need to integrate video and sound into Windows Help systems and create "live" video product tutorials. Includes Software Video Camera, Video Wizard, Video Tester, Video Player and Video for Windows Runtime.

The WinHelp Tool Kit is a collection of tools for the WinHelp author. Includes Help-To-Word, the only Help Decompiler in the world, WinHelp Inspector, WinHelp BugHunter, WinHelp Graphics Locator, WinHelp Graphics Library, and WinHelp Style Guide.

Contact: Blue Sky Software Corp. (800)677-4946 or (619)459-6365

...

(Jim Thompson is Managing Editor of Western News Service in Los Angeles, California. He also manages the Marlboro Racing News BBS. CompuServe: 72777,2677, MCI Mail: 321-4127, e-mail://jim.thompson@wnsnews.com

"As we go to Press ..."

After what is described as "several months of negotiations," Phil Becker, President of eSoft Inc., has taken an undisclosed equity position in Durand Communications Network Inc. Becker will also serve as a member of the Board of Directors of Durand Communications.

"I am extremely excited about this merger," said Becker. "I see it as the next step in the migration toward the World Wide Web. Durand has hit the mark with MindWire and I am pleased to be a part of what should be a bright future. Coupled with the Ipad, this merger of technologies will make the Internet and the Web usable to the average person."

He went on to say that eSoft, Inc. will continue to provide support and upgrades to TBBS. "Many believe the industry is moving completely toward client/server environments, but I don't see this. Instead, I see the industry splitting. In my view, there will still be a need for the traditional BBS package that offers speed along with the ability to connect a large number of lines to a single machine," Becker added.

Contacts:

eSoft Inc.
15200 E. Girard Ave., Ste. 3000
Aurora CO 80011
(303)699-6565 voice
e-mail://sales@esoft.com
http://www.esoft.com

Durand Comm. Network Inc.
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http://www.durand.com

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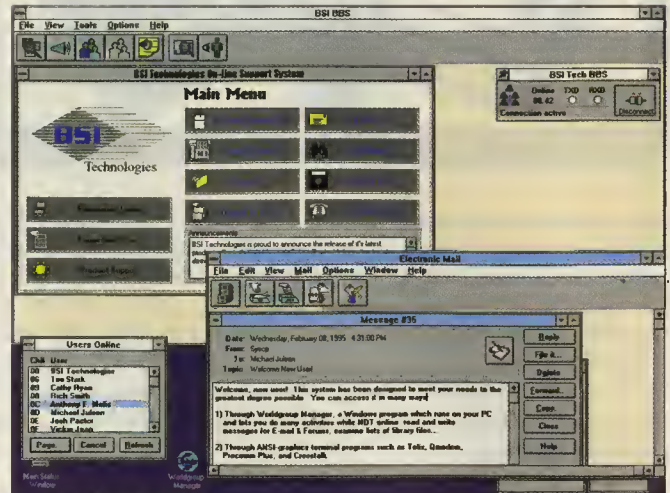
Need an online feature that no one else offers? Our full-time development team can provide custom applications for Worldgroup written in C, Visual Basic and Assembly. Just give us your specifications and we will design, write, test and install a module that meets your exact requirements.

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For those who don't have the time or technical skills necessary to run their own online service, using our service bureau can be a cost effective alternative. We take care of the details, such as daily backups, off site storage, a disaster recovery plan, and a technical support help desk for your callers, so you can concentrate on promoting your system. Internet, X.25 and World Wide Web services are also available for maximum connectivity solutions.

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Monthly and yearly support contracts are offered --- including 24 hour support service --- to guarantee access to technical answers whenever you need them. We also have Help Desk Support for your callers, to eliminate hiring a large staff for your location.




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We offer a complete line of training seminars for the system operator. From novice computer users to experts, our courses offer all the information you need to get your new online service up and running fast --- or to learn the "tricks of the trade" for optimizing your existing system.

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Because we are a "VAR" (Value Added Reseller), we offer service before and after the sale. Here's an example: What happens if your DigiBoard has a problem after you've bought it? If you buy it for five dollars less, you have to ship it back to the repair center to get it fixed. Buy it from us, and for the first year you own your board, if you experience a problem, we will send a replacement one out to you, overnight, at no charge.

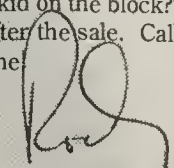
It's that added value that makes the difference. Not the five dollar price war that these "one-man" shops are running. We are able to provide you with a truly economical solution to your needs, without sacrificing quality. Call us. Just talking to us on the phone, you'll hear the difference.

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- | | |
|---|--|
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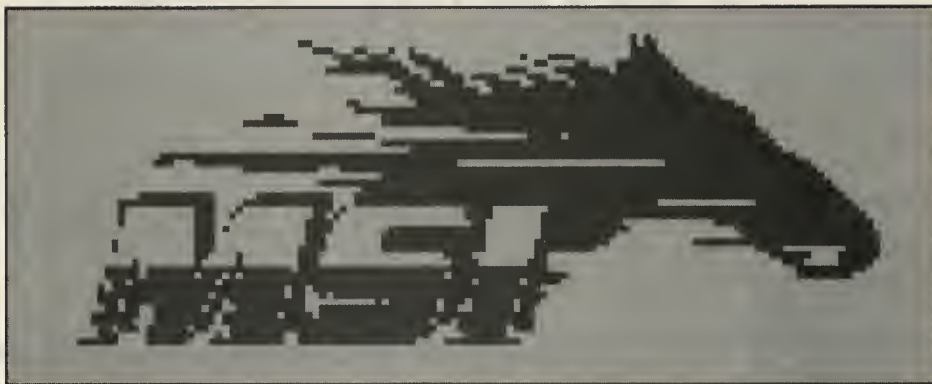
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MUSTANG SOFTWARE WEB SITE

Mustang Software Inc., developers of WildCat! BBS, Qmodem Pro Communications and Off-Line Xpress (OLX) offline mail reader software, now has a Web page at <http://www.mustang.com> where users can find information on products, the "MSI Monitor" newsletter and breaking announcements. Internauts can also retrieve information and product upgrade files from <ftp://mustang.com/ftp> or <telnet://bbs.mustang.com> to cruise the familiar support BBS.

CEO Jim Harrer tells us that MSI plans to start shipping v2.0 of Qmodem Pro for Windows 95 on August 24. The first third-party Win 95 terminal program, it features full 32-bit multi-threaded technology, a wide range of terminal emulation types and file transfer protocols, TAPI, MAPI and OLE 2.0 drag-n-drop support, a telnet client and a host of other Good Stuff. For example, users can clip text, graphics and other files from Qmodem's window and simply drop them into other applications such as cc:Mail, or make the clips desktop items for later review. TAPI (Telephony API) allows multiple Win 95 communications programs to share one comm device without contention. Qmodem Pro/Win95 does not seize a COM port when it is run, but waits for TAPI to advise Qmodem that a data call is coming in or that the COM port is no longer in use by another program. We'll take a close look at Qmodem Pro for Windows 95 in our next issue.

GINGRICH DENOUNCES EXON AMENDMENT

U. S. House of Representatives Speaker Newt Gingrich, speaking during taping of The Progress Report conservative weekly television show, said that the Exon amendment to the Telecommunications Deregulation Act will "have no real meaning and have no real impact and, in fact, I don't think it will survive."

"It is clearly a violation of free speech," said the Speaker, "and it's a violation of the right of adults to communicate with each other. I don't agree with it and I don't think it is a serious way to discuss a serious issue, which is: how do you maintain the right of free speech for adults while also protecting children in a medium which is available to both?"

The amendment passed the Senate last week by a vote of 86-14. However, the House version of the Telecommunications Deregulation Act does not contain the Exon language, and Gingrich's position makes it unlikely that the amendment will even be discussed.

Thanks to Dave McClure of the Association of Online Professionals - [e-mail://70631.266@compuserve.com](mailto://70631.266@compuserve.com) - for this encouraging news. Those wishing to express their thanks and encouragement to Gingrich may do so at [e-mail://georgia6@hr.house.gov](mailto://georgia6@hr.house.gov)

GAYS LAMBASTE SURFWATCH

Last month, we reluctantly reported the release of Surfwatch, a do-it-to-yourself censoring program that blocks access to over 1,000 newsgroups and sites on the Internet. Recently, *the San Jose Mercury News* reported that Surfwatch's preconfigured database of blocked addresses aroused the ire of gay and lesbian organizations who claim it blocked sites that have nothing to do with sex, but are apparently blocked just because their addresses or descriptions refer to gays and/or lesbians. "This is getting out of hand, the notion that anything that's gay equals sex," said Karen Wickre, co-director of San Francisco-based Digital Queers. Among the blocked sites was the homepage of the International Association of Gay Square Dance Clubs. "It turned out they had been blocking at one point on the word 'gay,'" said Christopher Kryzan, head of another gay/lesbian

organization. Kryzan blew the whistle in an e-mail alert to several online gay groups, resulting in a flood of complaints aimed at Surfwatch Software, Inc. The company changed its banned list within 24 hours. In an utterly incredible statement, CEO Bill Duvall said "Our basic policy has always been that we don't block on the basis of sexual orientation or preference." Guess the word "gay" was blocked on the basis that no one should be happy online.

CONNECTICUT OUTLAWS ONLINE HARASSMENT

On June 12, the ironically named state of Connecticut enacted a law that expanded its existing harassment law to include "computer network" among the ways it is illegal to threaten or harass someone. The law bans acts which threaten with "the intent to harass, annoy, alarm, or terrorize another person." The constitutionality of the law was upheld in 1980 by a Federal appeals court, which noted that the harassing behavior would have to be alarming or annoying "to any reasonable person." Civil libertarians contend that the words "annoy" and "alarm" are too vague and create the potential for liability if anyone simply disagrees with another person. Connecticut joins Michigan and Arizona in passing anti-harassment laws that include electronic venues.

BANANACOM WINS BEST OF SHOW AT CYBER.XPO 95

Banana Programming of Missoula MT - (406)543-1928 voice, (406)543-8234 BBS - took "Best of Show (Overall)" and "Best DOS Product (Hardware or Software)" at the first Cyber.Xpo convention for ISPs and BBS sysops in Las Vegas in June. Bananacom, the company's flagship product, is widely considered the world's easiest-to-use terminal program. Just run INSTALL.EXE and the program installs itself, locates your modem, configures it for 9600 bps and pops up a pre-loaded dialing directory. Zmodem is the default protocol so downloading is effortless. Sysops are wild about it as it spares them countless calls from clueless novice users. We've tried it and highly recommend it. Paul Wheaton, the Top Banana, noted that "Before the show, a convention employee discovered we were from Montana. She rudely suggested that 'country bumpkins' like us could not do well at a big show. That remark made winning 'Best of Show' especially sweet." A retail version was recently released in all major software stores.

SLIPKNOT WINS Z-D AWARD, RELEASES V1.11

SlipKnot was named Ziff-Davis/PC Magazine Shareware Communications Software Winner, based on "innovativeness, quality and value." SlipKnot was also the runner-up for Best of Year Overall category (behind CD-Quick Cache). Peter Brooks, SlipKnot's developer and President of MicroMind, based in New York City, accepted the awards in Scottsdale, Arizona, June 23. Preston Gralla, Executive Editor of Software for Ziff-Davis Interactive, said "SlipKnot is an excellent example of the creativity and innovation happening in shareware today." We concurred in our July review of the product, which can be downloaded from <ftp://interport.net/pub/pbrooks/slipknot/slnot111.zip>. Version 1.11 now offers OS/2 compatibility and speed improvements.

INTERNET SEARCH ENGINES GO COMMERCIAL

Three of the most popular and useful roadmaps to the I-way have been purchased by commercial interests, raising some concerns about the future affordability of these invaluable resources. O'Reilly & Associates' Global Network Navigator at <http://www.gnn.com/> and Brian Pinkerton's Webcrawler at <http://www.webcrawler.com> were bought by America Online, which pledges to keep the services "free" (except for AOL's \$2.95/hour connect charges, of course). Both sites remain accessible via the non-AOL Internet for the time being. On June 19, CMG Information Services, Inc. (NASDAQ symbol: CMGI) announced that it has purchased exclusive rights to the Lycos Spider Technology, the core of the massive Lycos database of Web sites (over 3.7 million catalogued pages) developed by Carnegie Mellon University. CMGI and the university have formed Lycos, Inc., to develop technology, sell advertising space on the site at <http://lycos.cs.cmu.edu/> and license the search engine to other organizations. (See Dr. Bob's interview with Webcrawler's Brian Pinkerton and Dave Tennant's AOL column elsewhere in this issue for more details.)

INFOSEEK SELLS MORE THAN WEB SITE LOOKUPS

Infoseek Corp., a privately-held Santa Clara CA company, offers a pay-per-hit service that encompasses over 400,000 Web sites, 4 weeks worth of postings

from 10,000 USENET newsgroups, the Computer Select database of fulltext articles from over 80 trade publications, a year's worth of Computerworld articles, two years each of Infoworld and Newsbytes, Cineman Syndicate movie reviews going back to 1980, and the proverbial "much, much more." Free searches displaying up to ten hits are available at <http://www.infoseek.com> and the company offers a no-charge 30-day trial of the full service. Infoseek's basic charges range from no monthly fee and \$0.20 per query and/or hit to a combination of \$9.95 per month with 100 queries/hits included and \$0.10 per additional monthly query/hit. However, some Premium Collection databases such as Computer Select charge up to \$5.00 per retrieved item. This reminds us of our first experience with modems in 1986; using the erstwhile Western Union Easylink database collection, we ran up a \$1,200 bill during our first 30 days. Use with caution.

PRODESIGN SUBSCRIPTION SYSTEM FOR WORLDGROUP

ProDesign Inc. announced the release of MIDAS 2.50 for Galacticcomm's Worldgroup v1.00 June 15. The MIDAS application is the first utility for Worldgroup that automates subscription sales by accepting credit cards and "electronic" checks, using Automated Transaction Services Inc.'s check production and electronic funds transfer services. Sysops who have difficulty obtaining credit card merchant accounts can accept electronic payment using the MIDAS software and ATS service. MIDAS lists for \$179 but is available at an introductory price of \$125. ProDesign Inc.: (505)244-0488 voice, (505)244-0000 BBS. ATS Inc.: (805)379-9271 voice, (310)204-3249 BBS

DIGEX LINKS BARBADOS, REPUBLIC OF GEORGIA TO INTERNET

Digital Express Group Inc., a Maryland ISP listed as one of *Upside* magazine's top 100 Hot Private Technology Companies, is helping the Parliamentary Human Rights Foundation (PHRF) set up a 64 Kbps satellite circuit in the former-USSR Republic of Georgia's capital of Tbilisi. The DIGEX team will also establish a network operations center and train local engineers. Internet access will be provided to the Georgian Academy of Sciences and Georgia Technical University, as well as the Georgian U.

S. embassy and the National Democratic Institute. The project is expected to be a model for other members of the new Commonwealth of Independent States (CIS) that are establishing democratic governments. The Internet connection will assist Georgian legislators as they complete a new constitution and draft laws in a number of areas including commercial and civil codes, criminal prosecution and privatization. Currently, Georgian lawmakers have little access to information and expertise on legal reform in democracies around the world.

DIGEX is also providing training, technical assistance and an Internet connection to Barbados External Telecommunications, the island's telephone company. BET hopes to establish itself as the communications hub of the Caribbean basin.

DIGEX: (301)847-5105 voice,
<http://www.digex.net> — PHRF:
<http://www.gdn.org/phrf.html>

NETROPOLIS DUMPS UNIX FOR WIN NT

Houston-based ISP Netropolis Communications Corp. will declare its independence from UNIX on July 4, moving its entire operation to Microsoft Windows NT. The new network will include dialup PPP connections at 28.8 Kbps, an SMTP mail server, an NNPT news server, multiple WWW servers, three DNS servers and sundry ISDN connections, all hooked through two T1 lines directly to the Internet backbone. Netropolis currently runs BSDI and OSFI on DEC Alphas and DEC Twin Pentium servers. Chief Technology Officer Mark Joseph Edwards says the migration to NT will allow Netropolis to manage its network in a much more organized fashion "and we'll be able to throw a lot of our management problems right out the 'window.'" Netropolis Communications Corp.: (713)977-9779 voice, <http://spider.netropolis.net> or e-mail: info@netropolis.net

O'REILLY DEBUTS USENET GUIDE

The USENET Handbook: A User's Guide to Netnews, will appear in bookstores starting in June. Written by Mark Harrison (ISBN: 1-56592-101-1) the \$24.95 tutorial covers popular newsreader programs such as tin, nn, GNUS and Trumpet; explains where to look for information and what to do with it once you get it; and provides

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GENIE DROPS SURCHARGES, ADDS 14.4 KBPS

GEnie Online Services will eliminate communications surcharges for access via SprintNet effective August 1, 1995. Simultaneously, 9600 bps access via GEnie's own network will be dropped. SprintNet users will get 14.4 Kbps access, and Canada's Datapac surcharges will fall to \$5.00 per hour. (Why does this read like a 1991 press release?) GEnie Online Services: (301)340-5216 voice.

BBS MALL-IN-A-BOX

The Earthlife Electronic Marketing Group of Minneapolis has launched the BBS Shopping Network, a DOOR.SYS-compatible hands-free business opportunity for sysops. "Loaded with attractively priced products" according to the company's press release, the RIPscrip-based catalog/order-entry system features the wares of sundry vendors recruited by Earthlife. The application lets users select and order products, then automatically uploads order files to Earthlife's processing center. Order fulfillment is handled by each vendor, and sysops receive commissions on sales received from their BBSs. Earthlife Electronic Marketing Group: (612)729-7774 voice; (800)519-6663 BBS for demo.

IOMEGA OFFERS 1 GB REMOVABLE DISK DRIVE

Iomega Corp. recently announced a 3-1/2 inch, removable magnetic disk drive named Jaz which holds one full gigabyte of data. The mighty midget can store five to eight minutes of uncompressed broadcast-quality digital video, making it attractive to production companies that need a convenient, portable medium for storing commercials and other short video clips that have to be shuffled between several editors. Using compression, one disk can hold up to two hours of video. The Jaz drive lists for \$499, with 1 Gb disks selling for \$99 each. Iomega Corp.: (801)778-1000 voice; http://iomega.com

"COMMANDING THE FUTURE" CONFERENCE SEPT. 28

CEOs from some of the world's leading companies - and our own Jack Rickard -

will meet in Orlando, Florida on Sept. 28 to explore the future uses of digital telecommunications technology. "Commanding the Future '95 - Collaborating on Technology to Capture and Serve Tomorrow's Markets" is billed as "the first international symposium designed for active participation at the CEO level." Over forty speakers will include Nicholas Negroponte of MIT Media Labs; Dr. Jean-Francois Abramatic, Director of Development for the French Institute for Computers that heads up the European digital network; Mark Donszelmann from Switzerland's CERN; Dr. Ishida, head of Internet Japan; Jerry Yang, developer of the Yahoo! search engine; Dr. Jill Ellsworth, author of *Marketing on the Internet* and Dr. Tan, head of Technet in Singapore. Basic registration starts at \$2,500. The Austin-Dunnavan Company: (407)774-7443 voice; (407)774-3201 fax; http://unlearn.com or e-mail://austin@iag.net

FULL-SERVICE BANKING ON THE INTERNET



While major financial institutions dither over how to serve customers over the Internet, a small credit union that serves the Stanford University community is quietly doing it. Last year, the Stanford Federal Credit Union (SFCU) became the first U. S. financial institution to perform transactions on the Internet. Today while other banks offer customers access to information, SFCU is still the only institution that lets members withdraw or transfer funds, pay loans, download up to a year's worth of transaction history and conduct other real business online.

Warren Marshall, CEO, believes that "The time is coming upon us very quick-

ly when financial services will not be differentiated by the product, but by how the product is delivered. We found that 85% of our transactions were being conducted electronically. Yet 65% of our resources were being used to serve the other 15% of our membership through three brick and mortar branches." After a trial run with 100 customers in April 1994, SFCU made Internet banking available to all 30,000 members last October. Members can also dial in via modem, but 75% prefer to use the Internet. SFCU: (415)723-8920 voice, e-mail://service@SFCU.ORG or http://www.sfcu.org

"FIRST KNIGHT" WEB GAME: BE RICHARD GERE, JULIA ORMOND

Columbia pictures has released an interactive Web game based on the film "First Knight," starring Sean Connery as King Arthur, Richard Gere as Sir Lancelot and Julia Ormond as Guinivere. The game, based at Sony Corp.'s Web site - http://www.sony.com - features the ability to choose a character from the film and embark upon a quest involving the film's plot. The game involves tasks such as riddling, word play and other activities. Players who solve the game will be entered in a drawing for various prizes including posters, sweatshirts and novelizations of the film. Five first prizes include a private screening of a forthcoming Columbia TriStar film for the winners and fifty of their friends in their home town.



SONICNET EXPERIMENTS WITH REALAUDIO

The Read Hot Organization, based in New York and London, is a non-profit music production company that has raised over \$5 million for AIDS awareness and relief since 1989. The offbeat organization has started a Web site at http://www.sonicnet.com which, among other things, showcases five-

The Professional BBS Service Bureau

Bulletin Board Systems (BBS) are fast becoming a vital tool for information exchange in corporations, associations, government and other professional organizations. Yet the learning curve and related costs for an in-house installation are steep. Not to mention the staffing required for continuous user support.

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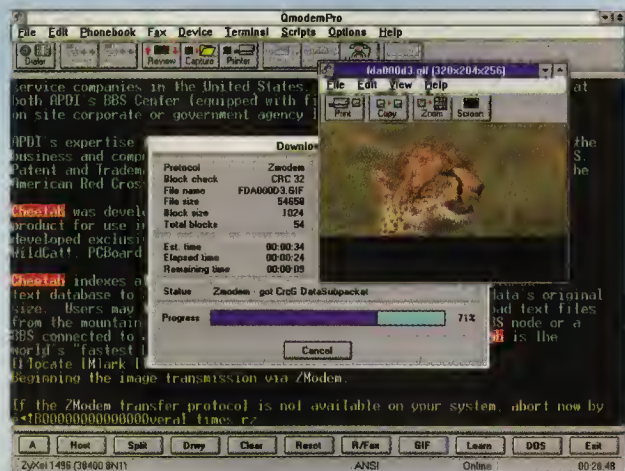
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minute album clips using Progressive Networks' Real Audio (RA) real-time sound player program. RA allows links between audio clips and animation files, permitting some interesting experiments with online rock videos. Users can retrieve the RA player from <http://www.realaudio.com> or Sonicnet's pages.

CORRECTIONS

The URL of Feminist Activist Resources on the Net has changed since it was published in our April 1995 issue. The new URL is <http://www.igc.org/women/feminist.html>. Thanks to Sarah Stapleton-Gray, author of the site.

Our May issue erroneously reported that Notable Technologies was "the only paging service provider to offer paging access through the World Wide Web." PlanetCom of Rockville MD, <http://planetcom.com>, also offers Web-to-pager services in the Baltimore/Washington DC area. Thanks to an anonymous, astute reader of our Website.

AT&T ELECTRONIC COMMERCE PAGE

BBS sysops, WWW site admins and just about everyone else online these days are looking for ideas, companies and services that will help them collect money via the Internet. AT&T's <http://www.research.att.com/www-buyinfo/index.html> page provides links to a myriad of white pages, press releases and the WWW sites of electronic commerce players such as DigiCash, the European Community's ESPRIT Program's High Security Digital Payment System, CyberCash, First Virtual, OpenMarket, NetCash, NetCheque and Netchex (three distinct companies), a "community currency" system akin to barter clubs proposed by LETSsystems, the Mondex smart card that stores electronic cash, Sandia Labs' Trustee-Based Electronic Cash System. "Electronic Privacy and Payment" contains various papers describing an "anonymous credit card system," a method of allowing transactions without revealing the parties' identities. Unfortunately, these files seem to be compressed using a compression algorithm; the extensions are all *.Z but there is no note as to what's needed to open them.

The AT&T site also links to IBM Zurich's <http://www.zurich.ibm.ch/Technology/Security/extern/ecom>

merce/ which details Big Blue's Internet Keyed Payment Protocols (iKP) and provides links to still more electronic commerce pages.

LIBRARY OF CONGRESS WEB SITE EXPANDS

News homepages have been set up on the Library of Congress' Web site at <http://www.loc.gov> under the "Services and Publications" category. The LOC's American Folklife Center page offers links to information about its reference services, publications, Archive of Folk Culture, concerts and events. The National Library Service for the Blind and Physically Handicapped page gives an overview of the NLS programs, a searchable list of publications, links to other libraries for persons who are visually and physically impaired and even an audio sampling of a talking book. The new Serial and Government Publications page provides general information about federal publications and links to current news resources such as President Clinton's proposed 1996 budget. The Cataloging Distribution Service allows electronic placement of orders for publications, photos and other materials.

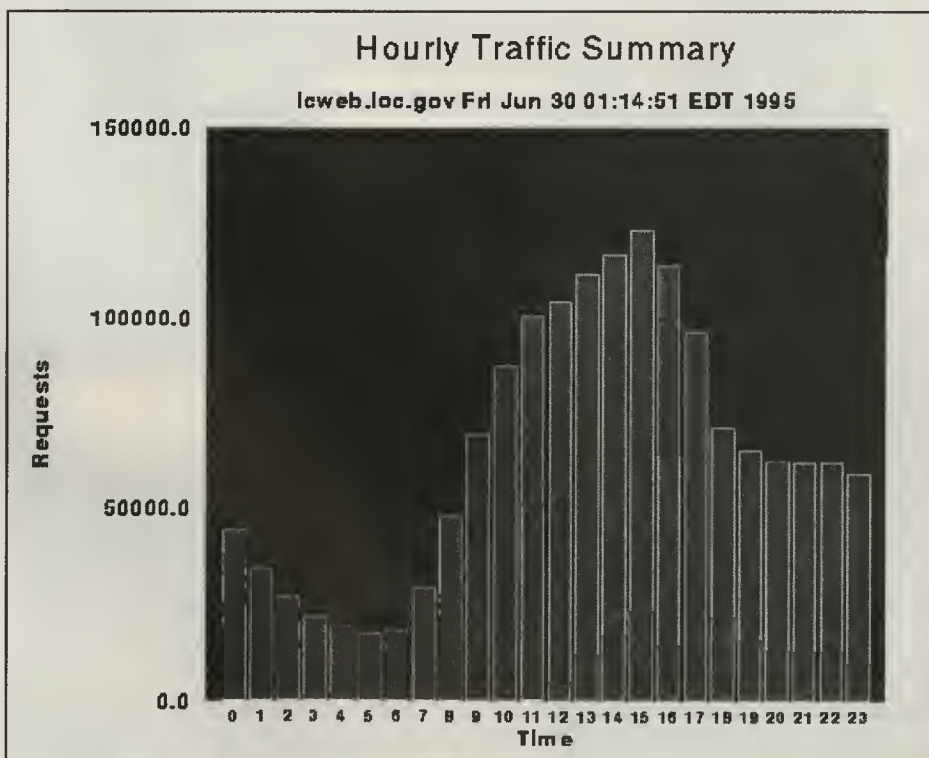
The LOC's Web site is probably one of the busiest in the world, recording up to 125,000 or so hits per hour as shown in the following graph taken from the service's usage statistics page. Still, we've never gotten a busy signal; kudos to one

of the few federal agencies to whom we do not begrudge our tax dollars!

THE ELECTRONIC NEWSSTAND ADDS PERSONAL LIBRARY SOFTWARE

Personal Library Software Inc. (PLS) and The Electronic Newsstand - <http://www.eneews.com> - announced a licensing/joint-service agreement under which the PL-Web search engine will become the basis for all of ENEWS' electronic publishing efforts. PL-Web, released in May, can be downloaded for a free 45-day evaluation from <http://www.pls.com> and costs \$4,995 per server. It allows publishers to add articles to a Web site as they are written, control which samples are offered free of charge, and provide links to their own Web sites.

The Electronic Newsstand offers a daily free sampling of "the best" articles from hundreds of leading publications including *Business Week*, *The Economist* and *Discover*. Users can also browse across all publications by keyword; "travel," for instance, pulls up items from *Travel Holiday* and *InsideFlyer* magazines. We found a gold mine of sites under the "Computers and Technology" category. Most of the linked Web sites were free and included a print-subscription order form. ♦



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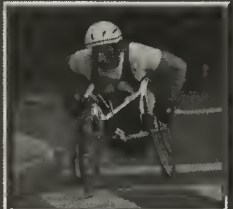
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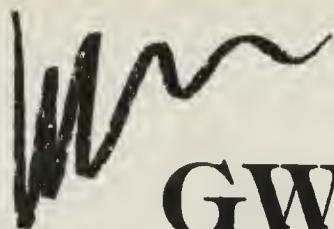
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Whether you just need a few menus created or a \$100,000 custom TDBS program written, we can provide the right amount of service. Ask about our **three year solution** — a complete system will all hardware covered by a three-year next day on-site warranty. All software supported for three years including free software updates.

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GW Associates offers over 200 third party programs from more than 30 developers and is the oldest and largest supplier of add-on programs for TBBS. Download the latest listing from the BBS. Most programs can be viewed on-line and many have demos you can download and try on your system.

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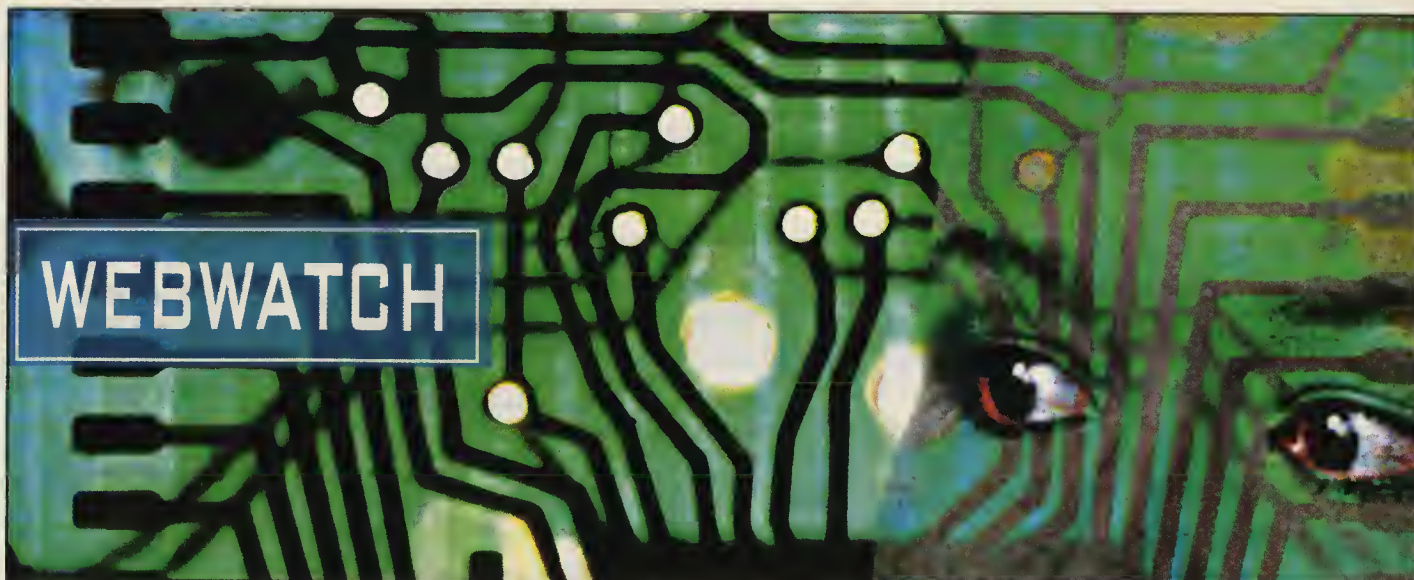
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•NETSCAPE WEB
SERVER PRODUCT
FREE EVALUATION

•JAVA—A NEW
DEVELOPMENT
LANGUAGE FOR
THE INTERNET

•BABB'S
BOOKMARKS

•PUBLISHING
ON THE WEB
—PART 7

NETSCAPE WEB SERVER PRODUCT FREE EVALUATION

by Jack Rickard

Netscape Communications Corporation announced that it is placing its server software products on the Internet for free evaluation. The new Netscape Server Test Drive program, patterned after the company's Netscape Navigator evaluation program begun in October 1994, enables users to download and use complete versions of the newly released Netscape Commerce Server 1.1 or Netscape Communications Server 1.1 for a 60-day trial period. Well, it purports to.

The Server Test Drive program gives individuals and organizations wanting to publish information on the Internet or on corporate TCP/IP networks an easy way to try Netscape's server products. Users can also test the security features of Netscape Commerce Server, which includes the Secure Sockets Layer open security protocol for conducting commerce and secure communications over the net.

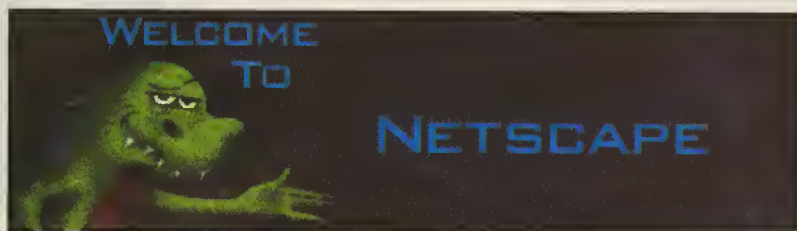
"Netscape Server Test Drive lets users easily experience the performance, security, and reliability that Netscape servers deliver for publishing and maintaining information on IP-based networks," said Marc Andreessen, co-founder and vice president of technology at Netscape. "By making the servers available for free evaluation, we hope to inspire more people to bring their information and businesses online and to spur the continuing, explosive growth of electronic publishing applications on global networks."

Netscape began offering the downloads from their homepage at <http://www.netscape.com> on June 2. Users fill out a brief questionnaire, and receive instructions by electronic mail noting their approval for the program, the download website URL, and a

logon name and password to use in gaining access to the files.

Netscape server software is available for a variety of popular UNIX-based platforms including Digital OSF/1 Alpha, Hewlett-Packard's HP-UX, IBM's AIX operating systems, Silicon Graphics' IRIX, and Sun Solaris and SunOS. The Windows NT versions of both servers are available for evaluation as well.

Actually, when we attempted to follow their instructions, we encountered another screen with a long license agreement we could read and agree to, followed by a thoroughly unbelievable screen noting that



the software is classified by the U.S. government as munitions. The communications server for NT that we had selected certainly isn't. But in any event, after completing a form noting that we were U.S. citizens and giving our name and address and e-mail address once again, we were notified that permission was denied to download the program. Ostensibly this was because they could not confirm that we were a U.S. domain. Actually, they could not perform a reverse domain name lookup. That's secure. We are listed throughout the domain name system, do support reverse lookups, and have no goofy firewalls in place. And we tried it from several different machines. But we didn't get the files. We certainly want a copy of this server so we can similarly abuse our friends and subscribers with THAT process.

The newly released 1.1 versions of Netscape Communications Server and Netscape Commerce Server ostensibly allow companies or individuals to easily set up and maintain servers for electronic

publishing and commerce applications on the Internet or corporate IP networks. The servers offer increased performance over other HTTP-based servers by reducing response times and making efficient use of available processor power and communications bandwidth. The Netscape Server Application Programming Interface (NSAPI) lets the servers be easily extended or integrated with custom applications or complementary products such as relational databases or full text search engines. The servers support open standards such as the HTTP protocol and Common Gateway Interface. They also provide an intuitive, self-documenting configuration and management user interface for easy set-up and maintenance.

Netscape Communications Server is designed for organizations that want to deliver multimedia content to various audiences, such as customer support information to existing customers, online marketing materials to potential customers, product development plans across company departments, or corporate policies to employees. It includes basic access authorization, which requires a user to specify user name and password to gain access. The server can dynamically scale to handle heavy loads or be extended to incorporate new features and functionality using the NSAPI.

Netscape Commerce Server, in addition to the above features, adds SSL to enable secure commerce to be conducted over global networks. Netscape Commerce Server is designed for online transactions and electronic data exchange, enabling users to send sensitive documents over networks in a secured manner.

The Server Test Drive program is available only in the United States. Users evaluating the servers can get technical help from Netscape's home pages and the Netscape Server Test Drive Newsgroup. You will not receive any other type of support as an evaluation test drive user.

Netscape Communications Server has an end user price of **\$1,495** for UNIX versions or **\$795** for the Windows NT version. Netscape Commerce Server has an end user price of **\$5,000** for UNIX versions and **\$2,995** for the Windows NT version. Users evaluating Netscape Commerce Server must purchase a signed digital certificate from RSA Data Security.

Netscape Communications Corporation is a premier provider of open software to enable people and companies to exchange information and conduct commerce over the Internet and other global networks. The company was founded in April 1994 by Dr. James H. Clark, founder of Silicon Graphics, Inc., a Fortune 500 computer systems company; and Marc Andreessen, creator of the NCSA Mosaic research prototype for the Internet. Privately held, Netscape Communications Corporation is based in Mountain View, California. Netscape Communications Corp., 501 E. Middlefield Rd.,

Mountain View, CA 94043; (415)528-2555 voice; (415)528-4124 Fax; Internet mail: info@netscape.com; <http://www.netscape.com>

JAVA - A NEW DEVELOPMENT LANGUAGE FOR THE INTERNET

by Jack Rickard

In the final week of May, Sun Microsystems released two essentially free products that may alter the very architecture of the Internet and specifically the World Wide Web in coming months. HotJava is a World Wide Web browser that can execute "applets," programs written in the Java programming language and included, like images, in HTML pages. It is essentially a free browser that demonstrates the capabilities of Java, the programming language.

And Java promises to be hot. It's a new programming language closely resembling the object-



JAVA DEVELOPMENT TEAM

Back: Frank Yellin, Chuck McManis, Chris Warth, Herb Jellinek, Tim Lindholm, Arthur van Hoff, Michele Huff, Jonathan Payne **Center:** Richard Tuck, Patrick Chan, Erik Gilbert, Eugene Kuerner, Mark Scott Johnson **Front:** Lisa Friendly, Sami Shaio, Bob Weisblatt, James Gosling, Kim Polese, Kathy Walrath **Not Shown:** Elizabeth Del Ben, Jim Graham, Ian Halifax, Mark Opperman, Steve Zellers, Headley Williamson, Carla Schroer, Tom Ball, Pavani Diwanji, David Connelly, Mary Campione

oriented C++ in both form and capabilities. But it is designed to use the network, and more specifically, the World Wide Web. And it looks like the most architecture-neutral method of developing new functions for the World Wide Web. It is an object-oriented programming language optimized for creation of distributed executable applications.

Currently, an alpha version of the HotJava browser, the Java language, and more documentation than you can possibly read is already available, at no charge, for SPARC-based Solaris machines, and for Microsoft Windows NT. They are available from the Sun Java World Wide Web page at <http://java.sun.com>. Actually, the source for the Solaris version of the language is also available for download.

Sun describes Java as a simple, object-oriented, distributed, interpreted, robust, secure, architecture-neutral, portable, high-performance, multithreaded, and dynamic language. Despite the amazing list of buzzwords, they do go on to define what each means in some useful ways.

SIMPLE

Sun wanted to build a system that could be programmed easily without the world having to learn an entirely new system. So they designed Java to look and act a lot like C++, which they felt was the most familiar object-oriented programming language. It does have automatic garbage collection, freeing the programmer from dealing with memory allocation issues, and they simply deleted some of the more troublesome virtues of C++ such as operator overloading, multiple inheritance, and so forth. The canonical "Hello World" example program in Java:

```
import java.applet.*;
import java.awt.Graphics;
class HelloWorld extends Applet {
    public void Init() {
        resize(150, 25);
    }
    public void paint(Graphics g) {
        g.drawString("Hello world!", 50, 25);
    }
}
```

OBJECT ORIENTED

Everything in software these days is object-oriented, and about 0.04% of the population has a clue what this means. I'm not actually included in the 0.04% but I'll repeat the party line for your perusal. It generally means re-usable software modules written as general "devices" in software that perform certain operations on data. More generally, it views data itself as an object with a certain interface to access it usefully. Once you write code to access the data through this interface, the code module becomes re-usable on any similar data with a similar interface.

DISTRIBUTED

Java has an extensive library of routines for coping easily with TCP/IP protocols like HTTP and FTP. Java applications can open and access objects across the net via URLs with the same ease that programmers are accustomed to when accessing a local file system.

ROBUST

Robust is a term frequently used to describe software that doesn't break easily. Since most of it is broken most of the time, it's usually a kind of oxymoron. Robust Software. Intelligent Government. But Sun is at least aware of the problem and attempted to provide a large degree of compile-time error checking quite beyond what happens with C and C++ compilers. Most notably, Java has true arrays rather than pointers and pointer arithmetic, which is one of the leading causes of overwriting memory and corrupting data in C. Freeing the programmer from memory corruption concerns should lead to fewer errors.

SECURE

Java is intended to be used in networked/distributed environments. Toward that end, a lot of emphasis has been placed on security. Java enables the construction of virus-free, tamper-free systems. The authentication techniques are based on public-key encryption. There is a strong interplay between "robust" and "secure." For example, the changes to the semantics of pointers make it impossible for applications to forge access to data structures or to access private data in objects that they do have access to. This closes the door on most activities of viruses.

ARCHITECTURE NEUTRAL

One of the most important aspects of Java is that it is theoretically architecture neutral. Java was designed to support applications on networks. In general, networks are composed

of a variety of systems with a variety of CPU and operating system architectures. To enable a Java application to execute anywhere on the network, the compiler generates an architecture neutral object file format - a kind of pseudocode they call BYTECODE. This compiled code is executable on many processors, given the presence of the Java runtime system for that platform.

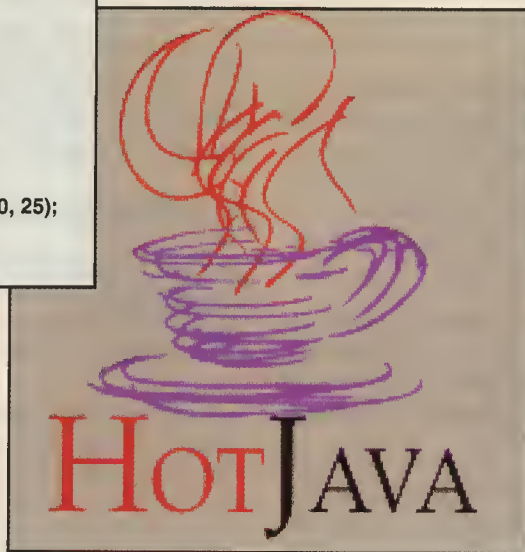
This is useful not only for networks but also for single system software distribution. In the present personal computer market, application writers have to produce versions of their application that are compatible with the IBM PC and with the Apple Macintosh. With the PC market (through Windows/NT) diversifying into many CPU architectures, and

Apple moving off the 68000 towards the PowerPC, this makes the production of software that runs on all platforms almost impossible. With Java, the same version of the application runs on all platforms.

The Java compiler does this by generating bytecode instructions which have nothing to do with a particular computer architecture. Rather, they are designed to be both easy to interpret on any machine and easily translated into native machine code on the fly. So the bytecode is distributed, and it is interpreted and run by the Java runtime which is machine specific. Sun has even alluded to future bytecode compilers that can convert the bytecode object files into true executables with performance similar to C++.

PORTABLE

Being architecture neutral is a big chunk of being portable, but there's more to it than that. Unlike C and C++, there are no "implementation dependent" aspects of the specification. The sizes of the primitive data types are specified, as is the behavior of arithmetic on them. For example, "int" always means a signed two's complement 32 bit integer, and "float" always means a 32-bit IEEE 754 floating point number. Making these choices is feasible in this day and age because essentially all interesting CPU's share these characteristics.





The libraries that are a part of the system define portable interfaces. For example, there is an abstract Window class and implementations of it for Unix, Windows and the Macintosh. The Java system itself is quite portable. The new compiler is written in Java and the runtime is written in ANSI C with a clean portability boundary. The portability boundary is essentially POSIX.

INTERPRETED

The Java interpreter can execute Java bytecodes directly on any machine to which the interpreter has been ported. The pseudocode generated by the compiler is transmitted over the network, and the actual interpreter specific to that machine runs the program. This again is the source of the architecture neutral aspect of Java.

HIGH PERFORMANCE

While the performance of interpreted bytecodes is usually more than adequate, there are situations where higher performance is required. The bytecodes can be translated on the fly (at run-time) into machine code for the particular CPU the application is running on. For those accustomed to the normal design of a compiler and dynamic loader, this is somewhat like putting the final machine code generator in the dynamic loader.

The bytecode format was designed with generating machine codes in mind, so the actual process of generating machine code is generally simple. Reasonably good code is produced: it does automatic register allocation and the compiler does some optimization when it produces the bytecodes.

In interpreted code, Sun gets some 300,000 method calls per second on a Sun Microsystems SPARCStation 10. The performance of bytecodes converted to machine code is almost indistinguishable from native C or C++.

MULTITHREADED

There are many things going on at the same time in the world around us - particularly in a networked world. Multithreading is a way of building applications that handle multiple tasks and appear to do so simultaneously. Unfortunately, writing programs that deal with many things happening at once can be much more difficult than writing in the conventional single-threaded C and C++ style.

Java has a sophisticated set of synchronization primitives that are based on the widely used monitor and condition variable paradigm that was introduced by C.A.R.Hoare. By integrating these concepts into the language they become much easier to use and are more robust. Much of the style of this integration came from Xerox's Cedar/Mesa system.

Other benefits of multithreading are better interactive responsiveness and real-time behavior. This is limited, however, by the underlying platform: stand-alone Java runtime environments have good real-time behavior. Running on top of other systems like Unix, Windows, the Macintosh, or Windows NT limits the real-time responsiveness to that of the underlying system.

DYNAMIC

In a number of ways, Java is a more dynamic language than C or C++. It was designed to adapt to an evolving environment. For example, one major problem with using C++ in a production environment is a side-effect of the way that code is always implemented. If company A produces a class library (a library of plug and play components) and company B buys it and uses it in their product, then if A changes its library and distributes a new release, B will almost certainly have to recompile and redistribute their own software. In an environment where the end user gets A's and B's software independently (say A is an OS vendor and B is an application vendor) problems can result.

For example, if A distributes an upgrade to its libraries, then all of the software from B will break. It is possible to avoid this problem in C++, but it is extraordinarily difficult and it effectively means not using any of the language's object-oriented features directly.

By making these interconnections between modules later, Java completely avoids these problems and makes the use of the object-oriented paradigm much more straightforward. Libraries can freely add new methods and instance variables without any effect on their clients.

SO HOW DOES THIS CHANGE THE WEB WORLD?

The World Wide Web is designed as a hypertext system for presenting documents. Online, we want to do many things, and not all of them really ARE documents nor lend themselves to this document model.

Web browsers are rather focused on allowing you to view documents. And it is already somewhat extensible. You can add programs to a browser. These "helper" applications all work out of the browser. If the browser receives a file from the web server with a certain file name convention, for example an MPG file, it can detect it and recognizes that it doesn't know how to present an MPG file on screen. But you can associate an MPEG viewer with the MPG file extension. When the browser receives the file, it calls the MPEG viewer program and passes it the file name. This helper application then pops up on screen and displays the movie received in the Motion Picture Experts Group (MPEG) file format.

But the web is entirely focused on passing documents and viewing them. And it can be awkward to present a file in an unusual format, for example, the Still Picture Bumbling Novice Group standard (SPBNG), when no one out there has a viewer for SPG files. Imagine being able to present the file *and* the SPG viewer all in the same document, and have the browser download the viewer, unpack it, install it, configure it for your system, and display the SPG file of a very motionless movie. This is essentially what Java does.

Sun has proposed an extension to the HyperText Markup Language to add a new tag titled APP. All text between <APP> and </APP> would then be the pseudocode for a software program or "application." The code would actually be the Java bytecode. I suppose in theory this could even be extended to handle other types of code, but for the moment, let's follow along with Java.

This all assumes that you as a developer or online service operator has the Java compiler to produce the bytecode. And

it further assumes that everyone has a browser with a Java run-time interpreter built into it. If those two things were true, you could write new servers using whatever you like - such as Visual Basic. And you could write a client to access the server in Java.

Thereafter, anyone who accesses your web page receives the code between the APP tags, and the Java interpreter immediately runs it as a client. The client can then "talk" to your server over the Internet, and do whatever you designed it to do. And that can be almost anything.

Let's say you operate a web page and you want to display to anyone who contacts your system the current stock price of all stocks related to green beans. You simply write an "applet" in Java that creates a window on screen, receives data from your server, and scrolls it across the box in ticker-tape fashion. Del Monte. Green Giant. Heinz. Kraft Foods.

Or, let's say you want to run a real-time chat server, but you don't want to run an IRC site, you don't want them to telnet your BBS and you want it to do something no one else does: randomly insert some expletive or rude comment after every fourth word typed by callers. And of course, you want to display each character as it is typed, which none of the Web functions can do. You simply write an applet in Java, include it on a page on your web server, and anyone paying your \$400 fee can access that page, receive the applet, and start into a journey of confusion as they chat with hundreds of others on your server with everyone having joyful expletives and descriptions of unmentionable body functions interspersed in their otherwise nearly Shakespearean conversation.

The key thing here is, no one has to have your client before they come to the party. They get it automatically as a side effect of the act of accessing your web page. When they leave they can throw it away. It will be there, and probably in an updated form, when they come back.

This looked a bit wasteful when I first pictured it. But in a world where graphic images often run 60 or 80 KB in size, and MPG movies can be measured in megabytes, it becomes trivial. With most of the networking in the interpreter, not the code, the programs will likely be very small.

And we're not talking just about document viewers, though that could probably be done as well for our fictitious SPBNG files. Java essentially allows you to modify the protocol itself. It opens the door to an infinite number of server variations done as CGI scripts or whatever, because you can develop both the server and the client with the assurance that everyone who visits has the client - in its latest release form. Essentially - endlessly extensible World Wide Web with NO considerations of the usual issues of deploying the client software to end users.

The protocols that Internet hosts use to communicate among themselves are key components of the net. For the World Wide Web, the hypertext transmission protocol (HTTP) is the most important of these communication protocols. In documents on the Web, a reference to a document is called a Uniform Resource Locator (URL). The URL contains the name of a protocol, HTTP for example, that is used to find that document. Current Web browsers have the knowledge of HTTP built-in. HotJava, rather than having built-in protocol handlers, uses the protocol name to link in the appropriate

handler. This allows new protocols to be incorporated dynamically.

The dynamic incorporation of protocols has special significance to how business is done on the Internet. Many vendors are providing new Web browsers and servers with added capabilities such as billing and security. These capabilities most often take the form of new protocols. Each vendor implements something unique, a new style of security for example, and sells a server and browser that speak this new protocol. If a user wants to access data on multiple servers each having a proprietary new protocol, the user needs multiple browsers. Needing several browsers is clumsy and defeats the synergistic cooperation that makes the WWW work.

With HotJava as a base, vendors can produce and sell exactly the piece that is their added value to what exists and integrate it smoothly with the products of other vendors. This seamless integration creates a final result that is very convenient for the end user.

Protocol handlers get installed in a sequence similar to how content handlers get installed. HotJava is given a reference to an object (a URL). If the handler for that protocol is already loaded, it is used. If not, HotJava searches, first the local system and then the system that is the target of the URL, for the protocol needed to interact with the object.

Java has a number of minor features we found interesting. Most notable is that the **char** function does not use the American Standard Code for Information Interchange or ASCII. ASCII has been the lingua franca for associating the alphabet with numerics used by computers for approximately ever, and a good deal of it is so old it refers to bells and line feeds and so forth originally used on teletype machines. A total of 256 symbols can be represented in the 8-bit world of ASCII.

Java does not use ASCII. It uses Unicode. Unicode has been floating around for several years as a proposed 16-bit code supporting some 64,000 characters. Why do we need 64,000 characters? Well, if we want to represent 10,000 or so Chinese characters it would help. Likewise Japanese, Cyrillic, Arabic, and so forth could all be represented more or less in 64,000 characters. Unicode has an International Standards Organization (ISO) implementation. It just doesn't have much showing up in software. Java uses Unicode instead of ASCII. Very interesting.

We don't quite buy all of Sun's assurances of security in Java. Java's weak area is that you allow anyone in the universe to compile a program, put it on their web site, and when you access the site your system automatically retrieves the program and runs it. This doesn't sound good. Sun insists that Java has tons of security features that make the writing of virus programs very nearly impossible. We'll see. It doesn't have to be a virus to scare me a bit. The BBS community suffered from Trojan Horse programs more than it ever did viruses. If the program can erase CONFIG.SYS, it's a problem. And if it can't, the language has pretty limited utility.

But we did find a couple of interesting elements. You can write programs that can't access the net at all. You can write programs to freely access the net. Or you can even write a



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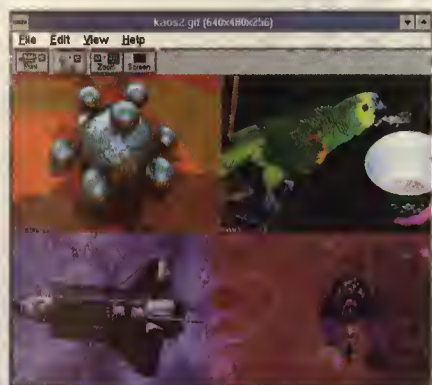
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program that ONLY access the site from which it was downloaded. You might conceivably write the next netwide killer application in Java. Or you might prefer that the program ONLY access your own site, and be essentially useless for anyone else's. It's a Java thing.

The key elements to success for Java are of course the relatively universal availability of the Java interpreter. This received a big boost when Netscape Communications announced that they had agreed to license the Java technology from Sun and incorporate it in the next release of the Netscape web browser. Netscape is already available for UNIX, Windows, Windows NT, and the Macintosh. Some estimate that nearly 75% of the browsers actually in operation are Netscape browsers now. We don't know precisely how you measure this, but we see an increasing number of web sites that use "Netscape Enhancements" to such a degree that they simply notify Internauts that if they don't use Netscape - Go Away.

We're somewhat guilty of this at Boardwatch. We've found JPG images are simply much smaller in size compared to GIF images to produce the same visual effect on screen - particularly for photographs. A number of the browsers out there can view GIF images, but not JPG images without a helper program such as LVIEW. After much nose scratching and studying both floor and ceiling, we decided to use them anyway. With over a thousand new PEOPLE accessing Boardwatch World Wide Web each day - <http://www.boardwatch.com> - we get about three e-mail messages a week from those who can't view them. It's a problem - just not our problem.

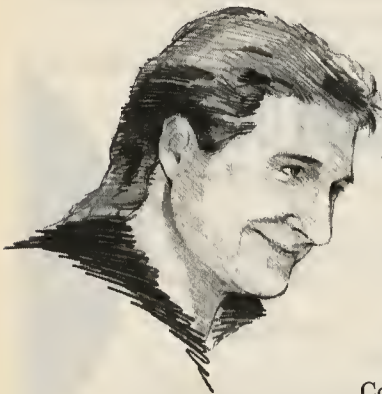
Finally, both Sun and Netscape are approaching the entire web function with a remarkable spirit of generosity in many ways. So much so that they irritate the hell out of all the people who had planned on selling Browser software for \$100 a unit. Netscape has essentially allowed personal use of Netscape at no charge. They're now allowing downloads of THEIR Web server software for a 60-day test drive. And Sun

is allowing free downloads of the HotJava browser and Java compiler for Solaris and Windows NT, really a product to demonstrate the use of Java. (Actually, the browser is also a product WRITTEN in Java). But they've also made source code for Java itself freely available. Both companies retain all rights to the products, but they've been remarkably generous in allowing everyone to use them - in a blatant attempt to gain universal acceptance. And we rather need universal acceptance of something, so we wish them well. We found <http://java.sun.com/documentation.html> provided good information on Java.

We did download the Alpha2 version for Windows NT from <http://java.sun.com>. This is a massive 3.6 MB self-extracting file. Apparently the server can handle 150 download sessions at a time and we received several notices that they were full, so the download sounds popular. Late at night, we did get the file. It unrarchived to over 11 MB of files in hundreds of directories. The package contains the Java compiler, the HotJava browser, and about seven tons of electronic documentation which is generally pretty light on a per-page basis.

Unfortunately, it mostly crashed a lot with application errors. We couldn't actually get it to do anything. We're also a little skeptical of an 11 MB program that is limited to 8-bit color in this release (256 colors) and generally crashes at any attempt to use it. But Java and HotJava were just announced in the final week of May, this IS an Alpha release, and hope springs eternal. If Java can be made to deliver on its promise, it may likely be the most mind-altering substance on the net.

Sun Microsystems was founded in 1982. They currently sport 13,267 employees and annual revenues of \$4.7 billion. They represent 37.8% of all workstation sales worldwide and claim some 56% of all Internet sites run Sun systems. They are traded under the stock symbol SUNW. Sun Microsystems, Inc., 2550 Garcia Ave., Mountain View, CA 94043; e-mail: //java@java.sun.com; <http://java.sun.com>◆



BABB'S BOOKMARKS by Chris Babb

Has anyone else noticed the bashing that the Internet has been taking from the press? How about our illustrious Senators and Congresspersons (minus a few who are actually enlightened) who

seem to think that the Internet is a porn-filled, bomb-making terrorists' haven? Or the parents who think that illicit material and perverts are just sitting and waiting for children to log on. Or <gasp> unsuspecting souls being MADE to see things they don't want to see? Let's not forget how easy it is to get ripped off, insulted, threatened, stalked, terrorized, picked on, picked up and lied to while online.

Wow, this sounds more like life OFF the Internet than ON. Personally, I feel a lot safer with a couple of modems, routers

and fiber between "them" and me. Off the Internet, the only thing between them and me is a few feet of air.

Basically, these people think the Internet and what is on the Internet should be banned, censored or controlled. I think that there are other things they should worry about in our society.

It truly amazes me that those who know so little think they know so much. It always seems to start out that way when it involves technology or more precisely, CHANGE. Change can scare people more than any terrorist, bomb, pervert or hacker ever could. We are in the midst of change at this very moment. The entire way that we communicate and disseminate information is evolving into a new form, totally alien to people who have never had access to information through the Internet or BBSs, and it's scaring the hell out of them.

BBSs once had the same stigma surrounding them. Hackers, viruses, pirated software and information that some don't want others to have, were always mentioned in the same sentence with BBSs. Now that the whole world can be your BBS, these same clueless folks want to control, censor, remove, lock out, turn off, litigate, arrest, complain, convene, misinform... basically, they don't like it, so you shouldn't have it.

I'm a little more than tired of small groups with loud voices who pontificate and think they have the appointed duty to control everything we see, do, and say. It doesn't just apply to the Internet, online services or BBSs either. It runs throughout our society, in everything from TV to movies to literature to our very thoughts and words.

If you have been watching the television lately, you have probably seen that you can get "Bomb Plans" on the Internet. Scary. The evening tabloid shows have talked at one time or another about this in connection with the Oklahoma City bombing back in April. Hmm, I wonder if the producers knew that in the movie "Bad Boys," a small bomb was made out of fertilizer? Did they ban that movie? The *Encyclopedia Britannica* contains information about making bombs from fertilizer; shall we ban that body of knowledge from all libraries?

How about the guy who went online, lied about his age and sex and was "shocked" by the response he got. Maybe he shouldn't have lied. What about the parents who were "stunned" when they found out that their 12 year old son had been downloading dirty pictures? Can you say "adult supervision"? Would you drop this same child off at the local mall or downtown or leave him at home without "adult supervision"?

My favorite is the "savior of souls" who left a message in the `alt.binaries.pictures.tasteless` newsgroup. He was shocked at what he saw and damned everyone to the "eternal fires of Hades." I'm sweating in anticipation. Why would a person like this one take the time to search through some 20,000+ newsgroups, find one called `alt.binaries.pictures.tasteless` and go in there, if he didn't want to be shocked? What did he think he would find in here? Pictures of boiled meat? A tongue without tastebuds? A cold? Give me a break! Seems to me that if he didn't want to be shocked, `alt.religion` would have been a much better choice. Maybe what we really need is to campaign for an `alt.I.don't.like.it.so.you.shouldn't.have.it` newsgroup. I guarantee that the traffic would bring news servers to their knees and probably suck half the available bandwidth from the Internet.

To borrow a line from George Carlin (my favorite comedian), "They want to ban the toy guns...and keep the (expletive deleted) REAL ones!" Very much the attitude when it comes to things people want to control, and a pretty good analogy to what is happening when moralists talk about the Internet. Everything that is "offensive" on the Internet is available and can happen without the Internet.

My point here is not to dispute that there are bad people and things on the Internet. There are, just as there are bad things about most everything in the rest of our society today. But if all it takes is the ability to see something or access information to cause someone to perform some unspeakable act, I would have to say that the problem does not lie with the Internet, but with the individual.

What bothers me the most is how responsibility for one's own actions has been totally forgotten. We have learned to excuse away our actions and shift the blame for our own stupidity and ignorance to a long-dead relative, childhood or - most often - someone or something that really has no control over what we do, why we do it and how we do it. As you can tell, I have no tolerance for any of it. Hence, before you are Babb's Beliefs:

- If you don't like what you see, don't look at it.
- If you don't like what it says, don't read it.
- Don't go to the trouble to look for something that offends you, and then complain about it.
- Don't put a hot cup of coffee between your legs.
- Don't do something stupid and then blame anyone except yourself.
- Supervise your children online as if they are out in the real world. They are.
- I don't like beer, but I won't tell others that they can't drink it.
- Censorship belongs in the home.
- The world is not always a friendly place.

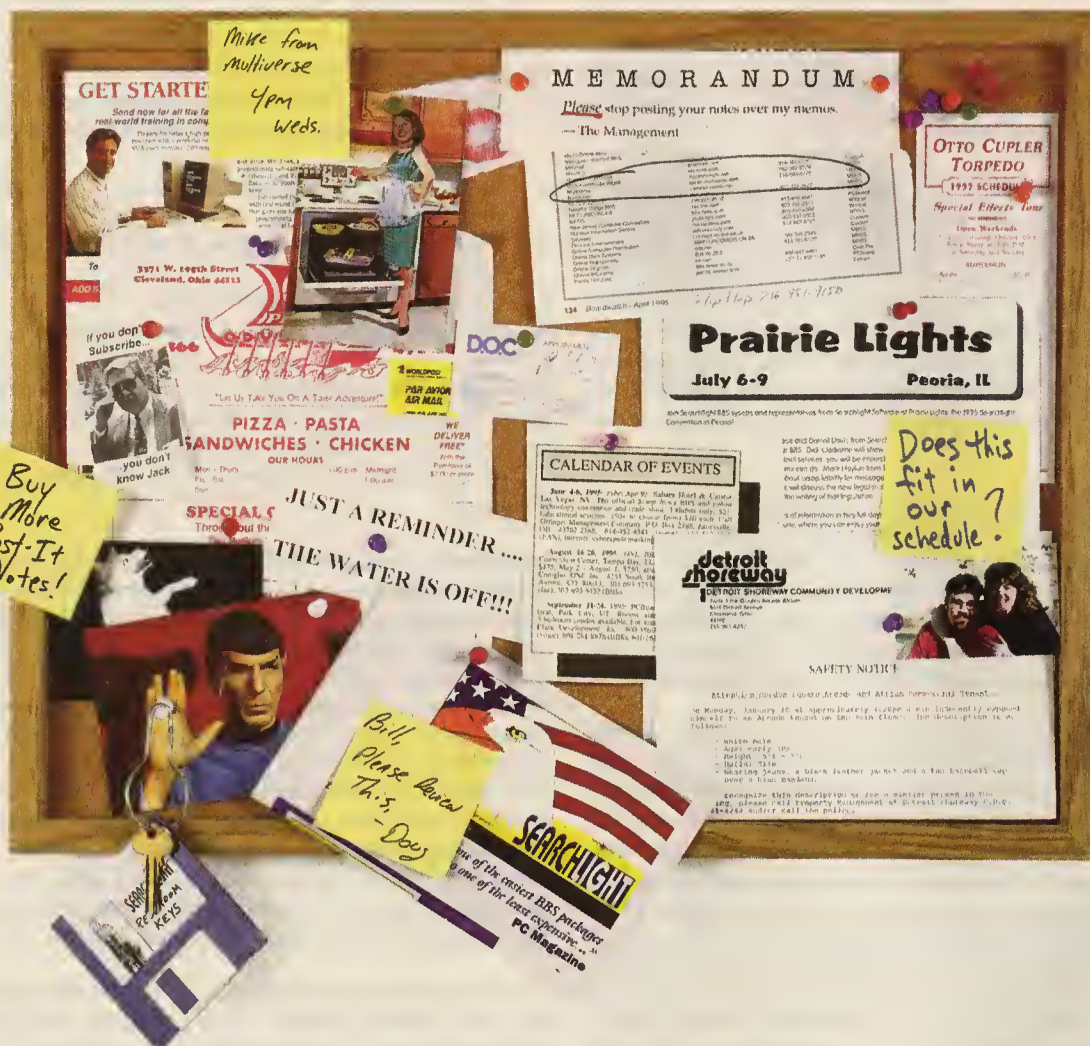
Now, after this magnificent manifesto, you probably think I'm going to saturate you with sites that are inane, controversial and provocative. Maybe something to jab at the tender spots of the intolerant and ready-to-be-offended masses. Hah, fooled ya!

In response to all the alarmist actions taking place on the airwaves, it behooves me to demonstrate that there is more good than bad available on our desktops. Like what? Well, there is interesting information on virtually anything you can imagine: computer software, hardware, recipes, history, current events, books, magazines, newspapers, personalities, outer space, inner space, religion and much more. There is entertainment in the form of games, jokes, limericks, strange but true stories, personal beliefs, movies, TV and audio. You can purchase perfume, chocolates, software, hardware, T-shirts and books, with more items becoming available every day. I could go on for a few more pages, but I think you understand the point. Stacking the good next to the bad, my good pile is way big and the bad pile is, well, way small.

I've covered many subjects since "Babb's Bookmarks" began. Starting Points, Space, Web Creation and Information, Software Support and a couple of other things. The response I have been getting has all been very positive and I am happy that everyone is finding something useful from it. I know that I have been exposed to sites that I would have probably never seen if I wasn't writing this column and I think I have found a few more for your mouse clicking enjoyment.

This month's column focuses on Celebrities on the Web. TV and Movies, radio commentators, comedians, politicians and assorted others. Some of them are very serious. Politicians are very concerned about their images; their pages are professional, polished and to the point. Well, most of them that is, are sites put up by fans and have a surprising amount of information, audio clips, movie clips and pictures. They are generally positive and have a good amount of entertainment value. Comedians are in the same boat, as it is their fans who promote them on the Web (with the exception of one) and have tons of fun built in along with links to other sites of other fans. The rest are just an extremely small amount of what is available for your enjoyment. Of course, I have included another Nutsite® for those who enjoy something strange and unique.

If you can use this,



A successful bulletin board has to be easy to use. Although the one pictured above is about as user friendly as you can get, the manufacturer left out a few of the key features you might need to get up to speed on today's information autobahn.

At Searchlight, we help you bridge the gap with BBS software that puts the emphasis on "easy". Our built-in GUI gives your callers the kind of intuitive interface they already understand. Information browsers make it easier than ever to select, view and download messages and files. Because we use the non-proprietary RIPscrip protocol, callers don't need a special client program to call your BBS. They can

use any RIP or ANSI compatible terminal. And Searchlight is the world's only BBS software that gives you a local RIP interface—so you can see and use graphics on *your* computer (or any computer on your LAN).

But don't let our good looks fool you. Unlimited message and file databases, seamless Internet compatibility and a built-in DOS doorway are just some of the features that make Searchlight powerful BBS software. And Searchlight supports RIPscrip 2.0, the new multimedia language from TeleGrafix that lets you incorporate JPEG images and digitized sounds into your BBS quickly and easily.

you can use this.



Since running a user friendly BBS system shouldn't be hard to do, Searchlight makes your job easy, too. From a simple install program that automatically configures your modem, to mouse driven Sysop tools and menu editors, you can set up a custom BBS in just minutes. If you need help, the best technical support in the industry is just a phone call away—and it's *always* free.

We even make it easy to try Searchlight. Our fully functional test drive does everything our regular product can do—we even include our complete manual on disk. To get your free copy, or find out more about Searchlight, call us today. And let us start making life easier for you.

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Speaking of Nutsites, I am sponsoring a Nutsite® contest for all who are interested. I am looking for weird, strange, bizarre and not-normal sites to feature in an upcoming column and I need your help! I have added a link to my Web page for you to post your entries and would appreciate everyone's input. The top 10 Nutsites will be featured and whoever submitted it will be mentioned along with the winning sites. Your entries can be submitted to me via the channels mentioned at the end of this column. I look forward to your input! Now, on to the sites.

BABB'S BOOKMARKS - AUGUST, 95

Phil Gramm For President
<http://www.gramm96.org/>

First off, this is not a vote for ANY candidate for the next presidential election. It's a vote of hope that the candidates (all of them) will make use of this new medium in a way that will give us information, clear and concise, about the actual individual and their position on the issues, rather than how much better they are than the other guy. Information is the key to knowledge and with the way things seem to be shaping up, we are all going to need a lot of that to weed out this herd.

This site is quite interesting and informative. It is well laid out and has an extraordinary amount of information on all aspects of the Senator, his family and his public service record:

Biographical Information - The Senator's complete biography is presented in text form with multimedia scattered throughout. Be sure you have the correct helper applications set up in order to see and hear them. You'll need both .MOV and .AIFF players to make full use of the information presented. You will also find a bio on Mrs. Gramm.

Campaign Offices - A complete listing of addresses and phone numbers to all of the Senator's offices is listed and updated as more are added, along with information of how you can help the campaign out. You can request information to be sent by regular and e-mail, order a bumper sticker, access other homepages related to Senator Gramm and even get on an electronic mailing list to keep abreast of the latest happenings in the race for the Presidency. Also listed are the current addresses and information for his Senate offices.

The Official Record - The most interesting and informative links available are the search engines to peek into the Senator's voting records and bills that were sponsored and cosponsored by him. A search of the 103rd and 104th congresses showed about 150 different items. A click on an item takes you to all of the information available on that bill, from who introduced it to the eventual resolution of it. Also available is a collection of 25 different speeches given on the Senate floor.

This information in itself is more than I was hoping to find. I was happy to also find public speeches, photos, multimedia presentations in the form of movies and audio, an FTP archive, a link to the mailing lists I spoke of earlier, straw poll results and a new quote from or about the Senator and this campaign every time you load the page. Excellent!

I hope the other candidates will take a look at this page and supply something along these lines. I would much rather read

through this type of information than listen to the type of bumbling, mumbling and cat fighting that the last presidential election produced. That style of campaigning leads to decisions of emotion rather than an intelligent decision based on the facts and records of the individuals involved. Kudos to Senator Gramm and his election committee for the time, thought, and information presented here.

DAN QUAYLE - THE VP & THE MYTH



***“[It’s] time
for the
human race
to enter the
solar system.”***

***— Vice President
Dan Quayle on the
concept of a
manned mission
to Mars.***

Dan Quayle Quotes

http://meer.net/~mtoy/dan_quayle.html

Capitol Steps Classic Hits - Quayle Dropping edition

<http://www.het.brown.edu/people/mende/steps/quayle.html>

Random Dan Quayle Quote Provider

<http://www.ugcs.caltech.edu/htbin/werdna/fortune?dan.quayle>

I have always found it hard to believe that this man was just a single heartbeat away from being the most powerful man in the world. Thank the spirits that George didn't give up the ghost while in office. I had a hard time believing that some of these sayings were actually real. But, as Dan Quayle says, "Public speaking is very easy." Yeah.

I am combining three sites into one here since they all have basically the same theme: regurgitating some of the comments and poetic prose of former Vice-President Dan Quayle in both his own words and in song. I can usually make some sense of the sometimes cryptic phrasing and generally figure out what he was trying to say, but it never fails to make me wonder how he survived in the public eye. "Dan Quayle Quotes" is a collection of almost 40 prodigious sayings that capture the essence of the former Vice President's "on the spot" quotables. The "Random Dan Quayle Quote Provider" is an extension of the previous page that will hand out quote after quote just by reloading the page. "Capitol Steps Classic Hits - Quayle Dropping Edition" is a collection of songs from

the Dan Quayle era. These songs are parodies, based on the original melody of songs of the past. From *Talk Like a Dan* to *Danny Got Run Over By A Reindeer*, everyone is sure to get a kick out of them. All the sound files are around 1 Mb and are in voice-quality Sun .au format. Also available is a link to the Alt.Fan.Dan-Quayle Home Page and to a collection of earlier albums on other political personalities. Well worth the effort.

TOM BROKAW/BILL GATES INTERVIEW



<http://www.brokaw.com/>

While I didn't find a separate page for either of these two, I did find this one and it is quite unique. Garish and loaded with really big type, it is different from what I normally see coming out my end of the pipe.

You start out with a clickable picture of Tom and Bill being followed down the street by a film crew. From there you have several choices. Clicking on "The Interview" will take you to a sneak preview of the interview (which was actually shown about a week ago at the time of this writing). The interview is in really big type (good use of the `` tag) and is bordered by stills of both Tom and Bill. The background is actually 2 small stills, one at each end of the page, giving it a "film" look. Included throughout the page are .MOV's and .WAV's of the actual interview. The questions range from "Who is Bill Gates" to "The Future of Microsoft" and beyond.

Clicking on "Information" will give you detailed bios on both Tom Brokaw and Bill Gates, along with the complete transcript of the interview and a way to order your very own videotaped copy. The trivia section will present you with semi-easy questions and a click on a question will give you the answer. Interesting for anyone who wants to gather a few tidbits of information about Microsoft. "Feedback" allows you to e-mail your comments, good or bad, right to the source. This is a positive element in helping NBC provide improved Web information in the future.

RUSH LIMBAUGH

<http://www.rtiis.com/nat/pol/rush/>

Someone has to tell us what is going on, and Jack Rickard is available just once a month. I don't always agree with Rush, but there are times when



he is right on the money. It is only natural some Limbaugh fans would feel the need to make Rush's presence known on the Web. Here is one of them. From this page you have access to most of what Rush has to say. Lots of it has to do with Bill Clinton, of course, but there are other "Rushisms" available too. You can see Bill Clinton's campaign promises (I started to wonder if I didn't click on the Dan Quayle bookmark by accident). Thirty-five undeniable truths on everything from our tax system to crime (synonyms for the same thing). The "Raw Deal Countdown" is available and is updated daily, with all the information that any true Rush fan needs to know. Sound bites from Rush's radio show, The 14 Commandments of the Religious Left, FAQs, responses and more Rush than you can shake a stick at. You can also send e-mail or a FAX right from the page. What more could any Rush fan ask for?

LATE SHOW WITH DAVID LETTERMAN

<http://www.cbs.com:80/lateshow/lateshow.html>



I love Dave. I think almost everyone loves him. I have been watching David Letterman from the beginning, always wondering what crazy idea or event he will think of next. I was always partial to Brother Theodore. I loved the way he would raise his voice, lose his mind and start yelling in German at David. I loved The Man Under The Seats, Stupid Human Tricks, Stupid Pet Tricks, dropping things from the top of a building, squishing things with bulldozers and viewer mail. I love the Late Night Band and the musical guests. I can't believe that he actually got some guy to blow a milk bubble out of his tear duct. Yech! Amazing what some people will do for 15 minutes of fame. Leave it to David Letterman to give them the opportunity.

This site is the official David Letterman page sponsored by CBS Television. The main portion of the opening page is the "Top 10" list from the previous night. This list is updated on a daily basis during the week and can be quite comical at times. The guest lists for today and the next 2 weeks are available, as well as a link to a searchable archive for all of the Top 10 lists from previous shows and the directors' Top 10 Top 10 lists from Dave's first year on CBS. Some of the other notables from this page are "Dave's Lines Of The Week", news about Dave and the show and a David Letterman Who's Who, where you can find out who Larry Bud Melman really is.

THE TONIGHT SHOW WITH JAY LENO

<http://www.nbctonightshow.com/>

I grew up watching The Tonight Show with Johnny Carson. I liked the show as much as a little kid could and really enjoyed the blast from the past when they were showing old clips as Johnny Carson was nearing retirement from the show. Now that Jay Leno is hosting it, I seem to enjoy it a little more. Jay has added more excitement and fun to the show while trying to keep up with the competition. I get a kick out



"Have you seen that new movie Bridges of Madison County? It's hard for guys to picture Clint Eastwood in a love story. I can't imagine when he is with Meryl Streep. Maybe they have a sexy scene and he is going I can't remember if there are five condoms in this box or six. So the question, Lady, is do you feel lucky tonight?"

of the Dancing Ito's and spoofs on the O. J. Simpson trial. The Tonight Show band is also the best on television today.

This site is updated every day with bits from the previous night's show, and is billed as NBC's first-ever Network program to be on the Web every day. There are video clips of Jay available in both QuickTime and AVI formats, backstage photos, funny typos and mistakes in newspapers from around the country, an e-mail address and link for you to leave your comments, a way to subscribe to the NBC Xtra - your guide to NBC TV and a list of upcoming guests for the show. All that seems to be missing is a searchable archive to all of Jay's past skits, guests and show highlights to round things out.

RODNEY DANGERFIELD



**Rodney and wife Joan:
You get our respect, Rod!**

<http://www.rodney.com/rodney/index.html>

Caddyshack sealed it for me with Rodney. He was so funny and cocky in that movie that I became a lifelong fan. I can't remember how many times I have laughed over the broken arm and dining room scenes. Credit for finding this excellent celebrity page goes to our own Editor-At-Fault, Dave Hakala, who asked for it a couple of months ago. Thank you sir. (Editor's Note: the *Rocky Mountain News* reported that Rodney had a Web site, but in typical mainstream journalism boneheadedness omitted its URL. I sicced Chris on it, and he delivered in about 20 minutes. -- DH)

This Web site should earn Rodney nothing BUT respect. It is colorful, well laid out, full of information and just plain fun. All of the pages on this site have links to all the other pages, making it very easy to jump from item to item. This page has so much that I can only describe a few of the highlights:

The Joke Of The Day supplies a typical Dangerfield joke and bit in both text and .WAV formats.

Clip Off The Old Block provides a pile of scenes from his movies and videos. Be prepared, these clips are in Quicktime and AVI formats and range in size from over 1 meg to 9 megs for the Triple Lindy Dive from Back To School. I love that scene and they did a pretty good job with his double on this part. What a dive!

Also available are many of Rodney's bits, information on lawsuit results, the Market Place with information on Rodney paraphernalia, "Rodney Recommends" items and services, hot Web sites, a place to e-mail Rodney and the "No Respect" contest, where you can win a phone call from Rodney himself. This site has Rodney Dangerfield written all over it. From the jokes to the descriptions on the pages, any fan should visit here.

THE MICHAEL JORDAN PAGE

<http://gagme.wwwa.com/~boba/mj1.html>

Being from Chicago, there was nothing more exciting than Michael coming out of retirement to play for the Bulls. I happen to be one of those "if they make it to the playoffs, I watch" fans, but when the news of Jordan's comeback was announced, I too was plastered to the TV to witness this historical event. What I



like most about Michael Jordan is the respectability he brings to the game. Mature and even-tempered, he accepts responsibility for his actions and comes across professionally at all times. When I asked "who our heroes are now" back in May, this is one person I should have mentioned.

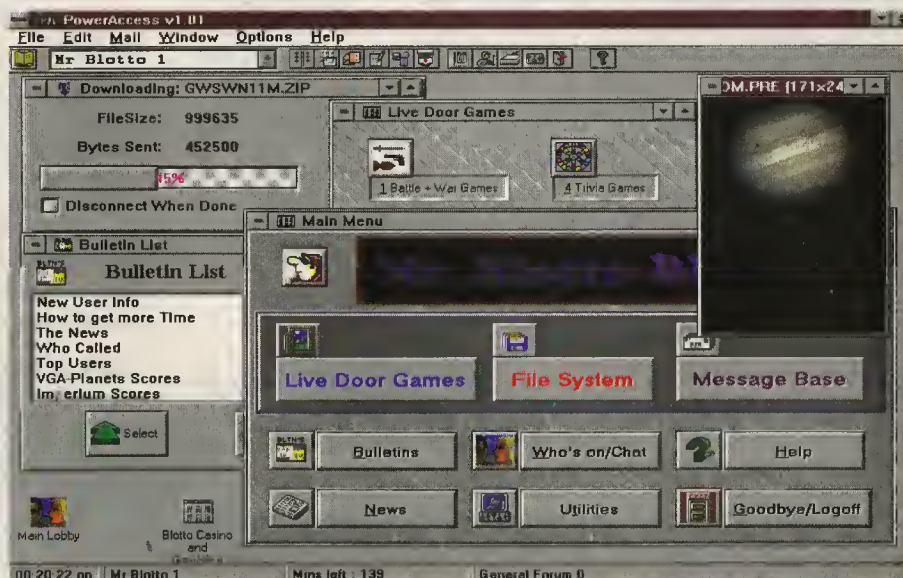
These pages are tributes to the man and the game, done as only a fan can do. It is loaded with pictures, stats, and information on MJ, the Bulls and MJ's return to the game. You will also find pages loaded with what people are saying about MJ; you can e-mail your thoughts off to be added for everyone to see. Excerpts from the newsgroups on what is being said from all over the Internet help to round out the general feeling on this superstar. Some of the stats available will take you back to MJ's beginnings with the Bulls back in 1984 (that long ago?), his career highlights and NBA records. Other stats are available on the Bulls' organization, along with the team's history. There are links that show the layout of the United Center with phone numbers and ticket information. The customary links to other MJ pages are also present and I highly recommend them for any true Basketball or MJ fan.

THE SIMPSONS

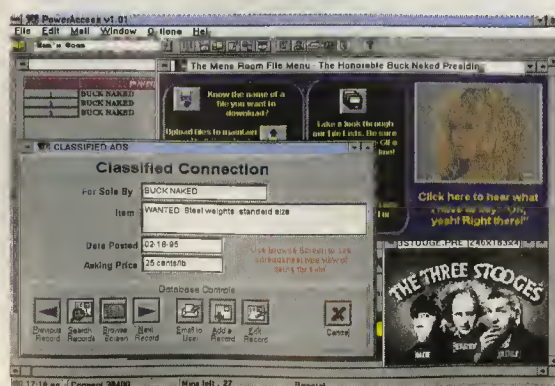
<http://yarrow.wt.uwa.edu.au/~sjackson/simpsons/>

The Simpsons? Celebrities? Sure, why not. There is always a lot of talk about them. The show is extremely popular and when I watch them I am usually laughing my butt off. I admit that it can get quite outlandish at times, but when I sit down to watch it that is exactly what I am looking for. My

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favorite episodes are those which focus on Bart - I wish I could have done some (only some) of the things he has pulled off. I also wish there had been a cartoon like *Itchy and Scratchy* on TV when I was a child. Actually, *Roadrunner* and *Bugs Bunny* stuff were pretty close. Too bad they have started cutting the better scenes of mayhem and destruction of other characters out of the versions being run today.

I was a little overwhelmed by finding so many Simpson sites. Since there were so many, I decided to find a page that had links to all of them. If I couldn't find that, I would have made my own page and put all of them there. Ahh, but I wasn't disappointed. I found this one. This site is billed as "**The Most Extensive Collection of Simpsons Links on the Web**" and this is no bull. Not only did I find links to FTP sites and newsgroups on the Simpsons that detail each episode, provided movie and sound clips and bits of information on all aspects of the show, but I found many links to sites scattered throughout the Web. Interesting, informative, colorful and well put together sites to boot.



From this page, you can get to the main Simpsons pages. This link alone kept me traversing the web for a couple of hours, as it is basically another collection of links to things like The Simpsons Archive, a collection of FTP sites with FAQs, sound and movie clips, lists and scripts of every episode along with a search engine that will help you to find exactly what you are looking for. The "Who Shot Mr. Burns" page, a page devoted to supplying you with clues and information as to who performed this dastardly deed. The Homer Samson Worship page, completely devoted to Homer sporting the first ever "Interactive Homer Samson", a clickable Homer that will take you even further into the depths of the Web. There are also links to getting the ever popular Samisens DOOM add-ons, a rundown on the people behind the voices, virtual Simpsons Scrabble and links to more sites in this country and in France and Germany. Are you still wondering if they are celebrities?

NutSite® Of The Month

I had quite a few choices this month as readers are finally letting me know some of the strangeness and coolness out there. Keep it up! Give me all you got. I know that the nuttiest site is still out there somewhere.

My choice for August came in at the last minute in the form of an e-mail message to me. I chose this site for a few reasons as described below.

MARK THOMAS' "THE HOLE"

<http://anansi.panix.com/~sorabji>

The best way to begin, is to quote the message that brought this to my attention:

"Not so sure how I'd feel about the encomium, should I be deemed NutSite of the week. (sic) But I think you might not

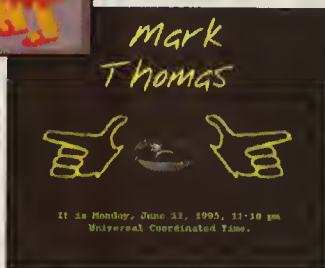
quite know what to say about my home page. I don't know what to say about it, either. It gets 50,000 hits a week, though, so I must be doing something right." — Mark Thomas

Mark is right. It is hard to describe this page in words. There is more to it than you think when you first get here. This site makes liberal use of several Netscape features. Screen and text colors, the server push functions, and text formatting and placement are just a few.

The first screen is very basic. Just a name and two pictures. Clicking on one of the pictures will take you on a semi-wild ride through different screens, with different color combinations with different sayings on each of them. I was a little unsettled at first, but I just sat back and enjoyed the ride.

Once things settled down, I was at another screen, similar to the first. From here, a click on one of the pictures took me to either an interesting screen animation or a screen full of interestingly formatted numbers. Clicking on a number seemed to bring up different sets of poetic prose and prophetic words of wit. All of them very interesting. There is more, but I think you will all enjoy finding them for yourselves.

What I liked best about this site is the CGI implementation that makes it all run. This is the part that Mark is doing right. Big pictures, screeching sound files and movies all help to make some of the sites on the Web more interesting. But what I, and it seems 50,00 people per week, really seem to enjoy is maybe a little *less* control over the journeys we take on the Web. I hope to see more of this in the future.



To close out this edition of NutSite® Of The Month, I will again quote Mark Thomas:

"I think NutSite of the Month is something we should all aspire to!"

I heartily agree!

Enough for this month. I would have to think that this will keep you busy for a little while. I hope that the great myth surrounding the Internet that is being perpetuated by the press will finally give way to reporting the good side of it. It is big, wondrous and extremely informative and interesting. Just another of my hopes? Yep, but maybe, just maybe, this one will pan out.

I urge everyone to visit the Babb's Bookmarks Homepage for these sites along with many more relating to everything that I have written about this month. I also have all of my past articles, linked and available for your mouse clicking enjoyment. Always a treat. Always something new, or something. Also don't forget to sign my guestbook as I would really like to know how these columns are helping you out. Links to these and other Babb's Bookmarks are available at the Aquila BBS/Internet WWW server at:

<http://www.aquila.com/babbs.bookmarks/>

All comments are generously accepted and considered. E-mail me at:

chris.babb@aquila.com

Enjoy!◆



PUBLISHING ON THE WEB

by Michael Erwin

PART 7

In this month's column we are going to start covering those pesky little wonderful things known as **HTML extensions**. OK, you ask, what is an HTML extension? Well I am going to tell you and - as always - show you.

If you didn't know, we have been writing our HTML Web pages in what is known as **HTML v2.0** specification. As we all know, if there is a current version of something, it too will pass. In HTML's case, the client's web browsers have dramatically changed in the past few years. As HTML publishers dream up new features to incorporate into an HTML document, the specification has evolved. Currently, the proposed **HTML v3.0** specification is being polished up.

Some of the new browsers include specific elements and tags that only certain web browsers can render. Different browsers recognize different HTML tags, elements and attributes. These specific tags, elements and attributes are the *HTML extensions* that I am talking about. Currently, I consider anything that is not covered in the HTML v2.0 specification to be an HTML extension. I know some people are going to challenge that "narrow" definition. But until the new HTML v3.0 is finished, I will consider these tags, elements and attributes as HTML extensions.

So why would you want to use these HTML extensions, if not all browsers can use them? Well, extensions offer advanced features and tricks not possible in HTML v2.0, and incorporating them in your documents will not affect users whose browsers do not support particular extension. Remember, when a browser comes across a tag it doesn't know, it will ignore that tag. That's what it should do.

This month I am going to show a few extensions to *Netscape Navigator v1.1*. Why Netscape? It currently is the leading Web browser. And as long as Marc Andreessen is working on it, I suspect it will remain the leading browser for the future. As for those of you who do not use Netscape's WWW browser, GET, USE, and REGISTER IT! <ftp://ftp.netscape.com> or <http://www.netscape.com/>

Okay, let's look at one of these cool little things. If you look at your web browser's background, it is probably a light gray. (CELLO and ATHENA use different default colors.) This light gray to us techno-weenies is **192,192,192**. This number sequence is called a **color triplet**. These numbers represent Red, Green and Blue index numbers, with a minimum brightness of 0 and a maximum of 255. When you put these Red, Green, Blue codes together as 192,192,192, it forms "GUI Gray." See any Windows screen for an example.

In the past, the only way you could change this color was to change the default document background on the browser. In the new HTML extensions to Netscape's Navigator v1.1, they have added several attributes to the **<BODY>** tag. Remember that tag? It tells the browser where the body of the HTML document starts. One of the new attributes to the **<BODY>** tag is **BGCOLOR**. I bet you already figured that **BGCOLOR** stands for BackGround COLOR. It is used like this:

EXAMPLE OF BGCOLOR ATTRIBUTE IN <BODY> TAG

```
<HTML>
<HEAD>
<TITLE>Boardwatch Color Example #1</TITLE>
</HEAD>
<BODY BGCOLOR="#rrggbb">
# insert your HTML document body here
</BODY>
```

The **"#rrggbb"** in the preceding listing is a hexadecimal red-green-blue index triplet. This tells the client's browser to use this defined background. (See sidebar on hexadecimal notation. Try different settings by writing a simple HTML document and load it into Netscape to see the results. Go ahead and try it. Pretty cool, huh?

By now you probably have tried a **BGCOLOR="#000000"**, which is black. Think about it for a second....RIGHT! If the background is black, the text is also black. You will wonder, "Who turned out the lights?" Well, those wonderful people at Netscape thought of that also. They added the **TEXT="#rrggbb"** HTML attribute. It lets you change the color of the rendered text. The color is also based on hexadecimal triplet numbers. Look at the following lines:

EXAMPLE OF TEXT= ATTRIBUTE

```
<HTML>
<HEAD>
<TITLE>Boardwatch Color Example #2</TITLE>
</HEAD>
<BODY TEXT="#rrggbb">
# Insert your HTML document body here
</BODY>
```

These attributes have a cumulative effect. Look at the following code listing. It renders a black background and light gray text. Isn't that cool? Go ahead and try different **"#rrggbbb"** numbers. Remember that in HEX, these numbers stop at FF (256 decimal).

CUMULATIVE EFFECT OF BGCOLOR & TEXT ATTRIBUTES

```
<HTML>
<HEAD>
<TITLE>Boardwatch Color Example #3</TITLE>
</HEAD>
<BODY BGCOLOR="#000000" TEXT="#F0F0F0">
# Insert your HTML document body here
</BODY>
```

Before I go on though, I need to tell you... you can NOT define the colors more than ONCE in an HTML page. That is to say, you can not display the top part of your HTML page in one color scheme and then change the color scheme in the bottom half of the page.

Did you notice I said "color scheme?" How is the background and text color considered color scheme? It isn't, but if you can change the background and text color, you should be able to change other things about your HTML document to create a "scheme". Take a look at this code listing:

```
<HTML>
<HEAD>
<TITLE>Boardwatch Color Example #4</TITLE>
</HEAD>
<BODY BGCOLOR="#000000" TEXT="#F0F0F0" LINK="#FFFF00"
VLINK="#22AA22"
ALINK="#0077FF">
<H2>
Insert your HTML document body here, including any HREF tags
</H2>
</BODY>
```

In this example, **BGCOLOR="#000000"** is the definition of BackGround COLOR, which creates a black background. The **TEXT="#F0F0F0"** definition is rendered light grey by the browser. Nothing unusual yet, right? Well we can't have that. The LINK attribute tells the browser how to render the Anchored HyperREference **<A HREF>**. In this example **LINK="#FFFF00"** tells the browser to render **<A HREF>** elements as yellow. See Figure 1.

The VLINK attribute stands for Visited LINK. This will be the color of the **<A HREF>** element if you have already Visited

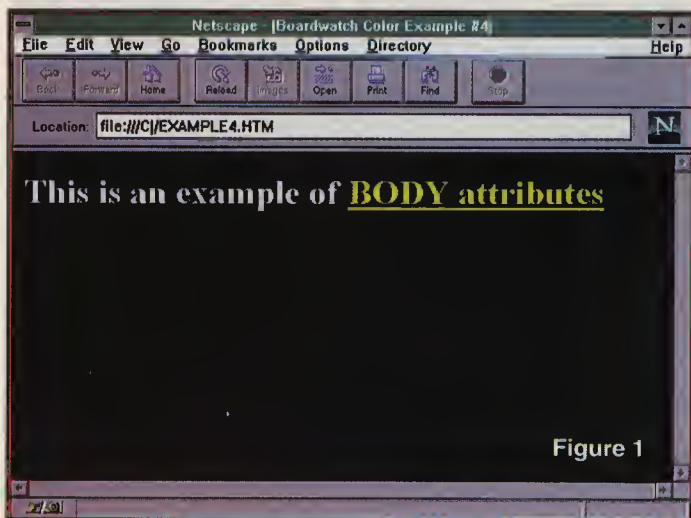


Figure 1

that LINK. In the example shown - **VLINK="#22aa22"** - a Visited LINK will be rendered a pale green. With that in mind, an ALINK attribute has to be an Active LINK. What is an Active link you ask? An ALINK is the color a **<A HREF>** is when you click on it, but do not release the mouse button. In this case **ALINK="#0077FF"** will be rendered a flashing Blue-Green when clicked on. Type that **<BODY>** line into an existing HTML document to see what it will do in living color.

Figure 2 is an example of using a background image, a feature which is proposed in the evolving HTML v3.0 specification. Here is the sample HTML document of figure 2:

EXAMPLE OF BACKGROUND IMAGE (SEE FIGURE 2)

```
<HTML>
<HEAD>
<TITLE>Boardwatch Background Image Example</TITLE>
</HEAD>
<BODY BACKGROUND="steel.gif" TEXT="#00F0F0"
LINK="#FFFF00" VLINK="#22AA22"
ALINK="#0077FF">
<H2>
Insert your HTML document body here, including any HREF tags
</H2>
</BODY>
```

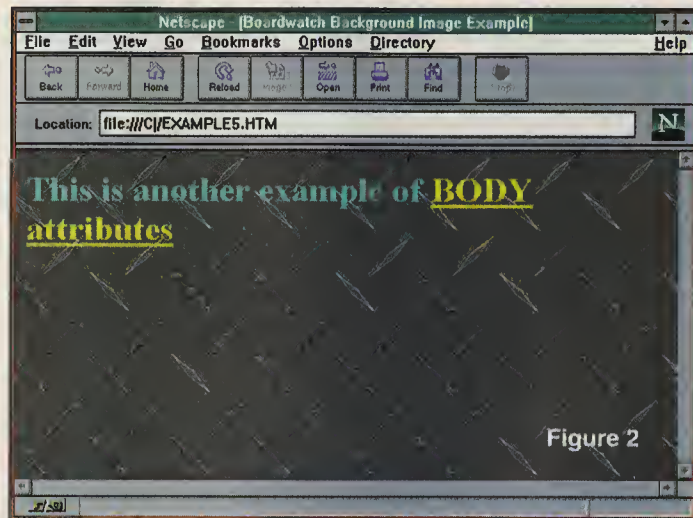


Figure 2

Example of BACKGROUND image attribute

This is an example of using the BACKGROUND image attribute. It's really simple. You simply tell it what image you want to use as a background wallpaper. This image will be "tiled" to fill the full document viewing window. You can find a nice selection of simple background images at <http://www.netscape.com/> or use other simple GIFs for the background images.

But you might want to think about the potential problems of using this extension. First, when the client's browser receives a document using a BACKGROUND image, it will not display or render the document until it receives the BACKGROUND image. Your HTML document will be rendered more slowly, especially if the image is big. Second, if you use a big image for the BACKGROUND, think about the impact on your HTTP server. Are you on a small pipe, like a 56kb Frame-Relay connection or less? Third, what if the client's browser has the "Auto Load Images" option turned off? This is a background image right? Right, so it will no be rendered on the client's browser.

By the way, you can use the BACKGROUND attribute with the other BODY tag attributes, i. e., BGCOLOR, TEXT, LINK, VLINK and ALINK. Now if "Auto Load Images" is turned off on the client's browser, and you did not specify a BGCOLOR, then the other will be ignored. This way, if you do not get the background image your text will at least be readable. Man, you gotta love this browser!

These BODY attributes give such color control over your HTML documents, you just can't ask for more. Well you can I guess, like specific text color.. but that will have to wait till the **HTML 95** specification. (Just kidding!)

So now that you know what HTML extensions are, and you have an example of a neat extension to HTML v2.0 specification for Netscape Navigator, and you have started working with the proposed HTML v3.0 specification, with the BACKGROUND attribute, I bet you can't wait till next months article. We will continue to cover new elements, tags and attributes. See you in class at ONE BBSCON.

mikee@access.mountain.net

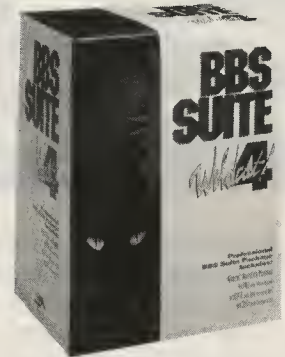
HEXADECIMAL NUMBERS

Just as a reminder to those of you that are new to computers: hexadecimal or "hex" is a numbering system with a base of 16. When you reach nine, your next number is represented by the letter A. Look at the following:

hexadecimal A=10 decimal
hexadecimal B=11 decimal
hexadecimal C=12 decimal
hexadecimal D=13 decimal
hexadecimal E=14 decimal
hexadecimal F=15 decimal

So once you get to F, the next number is 10h. 10hex is the same as 16 decimal. FF hexadecimal is equal to 255 decimal. That concludes the HEX class. ♦

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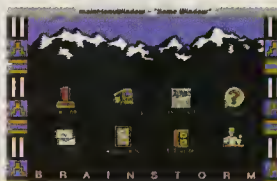
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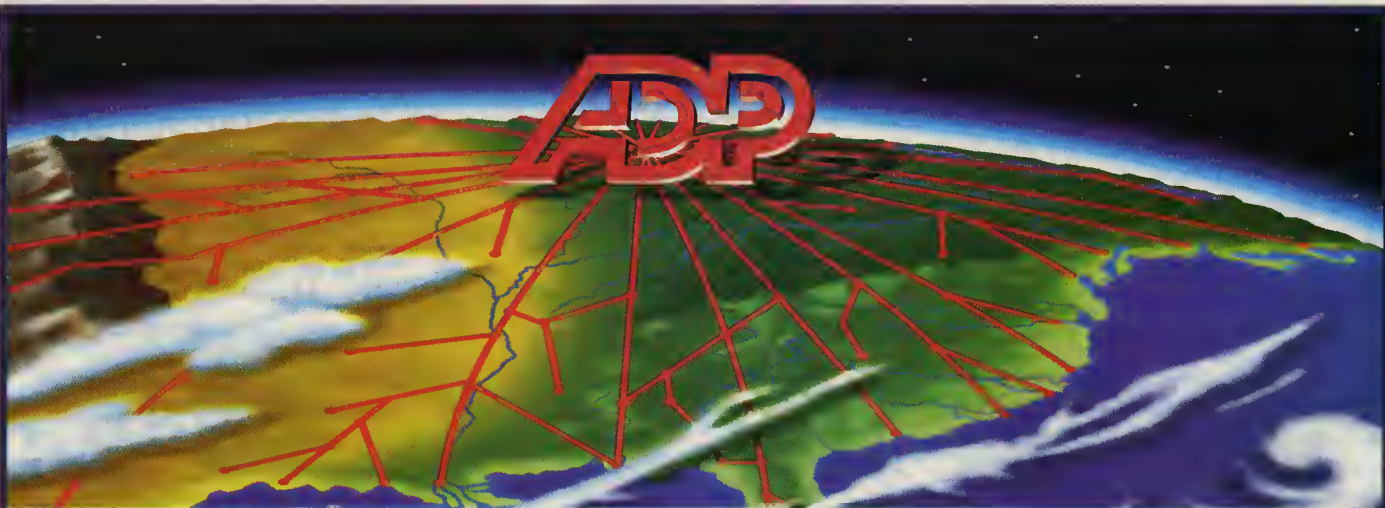
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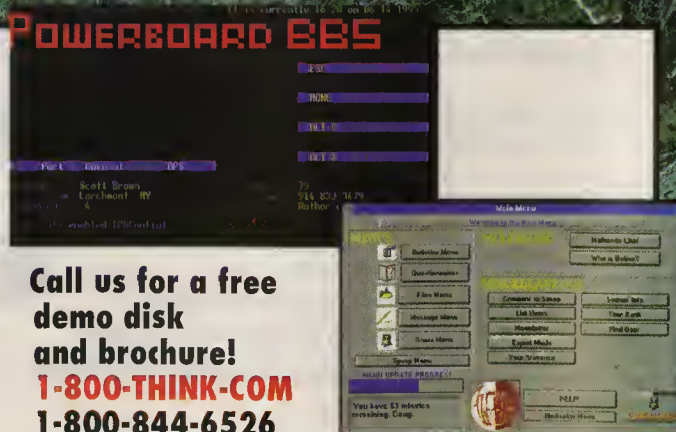
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221



MACINTOSH NEWS

by Bill Gram-Reefer

SHAREWARE TO REALWARE

I first saw **CU-SeeMe** in action at BMUG's MacFest back in April 1994, as a crowd including Aboba, Cohen and others gathered round to view sketchy, but convincingly live, remote video flickering on a Mac's screen; the image originating from BMUG-Boston via an Internet connection. I recall that was before the table fell and a few other more system-related crashes. But it worked. Now get out your Connectix QuickCam.

That was then. This is now, at least 13 months later, and the cute video hack has grown into a promising bi-platform beauty – snagging a handsome date for the debutante ball as it prepares for presentation to commercial society. The lucky escort, charged with getting the neophyte out the door and earning her keep is **White Pine Software**, selected by the Cornell Research Foundation as the master licensee of CU-SeeMe desktop video-conferencing technology. Under the exclusive agreement, White Pine is to make low-cost, commercially enhanced and supported Macintosh and Windows versions of CU-SeeMe available to Internet users worldwide. Royalties generated from these sales will be directed toward the continued advancement of the unfolding technology.

The May 3 announcement was made live over the Internet from the Desktop Video-conferencing Conference Center (DVC) in San Francisco, CA. Cornell researchers participated via a CU-SeeMe video conference link from Ithaca, NY. Those who attended the news conference in person were invited to listen and ask questions of both parties. Similarly, members of the media who could not attend in person were invited to listen and view from their desktops over a worldwide reflector network set up specifically for the news conference. With the use of their standard desktop computer connected to a TCP/IP network and Cornell's public domain beta software, "virtual attendees" were able to see and hear the news conference from the convenience of their own desks.

CU-SeeMe consists of desktop client software and a server-like component called a *reflector*. Together these elements deliver person-to-person connections for video-based phone calls providing interactive video and voice communications via the Internet or any local TCP/IP-based network. By using a reflector in multiple locations, a wide area group (WAG?) conference can easily be held.

As master licensee, White Pine plans to create a global technology partnership and worldwide distribution channel for commercially enhanced versions of CU-SeeMe. This project will encompass third-party soft-

ware development partnerships, OEM licensing, direct sale and resale through distribution. A free public domain version of CU-SeeMe will continue to be available.

Commercial enhancements expected to ship this year include general performance improvements, color capability, improved audio fidelity, interactive whiteboard and application sharing. Special versions of CU-SeeMe employing Application Program Interface (API) standards will be made available to software developers for incorporating the CU-SeeMe video/audio engines and communication protocol into other desktop applications.

If you want to step in for a dance, call Forrest Milkowski, Director of Product Marketing, White Pine Software, 40 Simon Street, Nashua, NH 03060-3043; (603) 886-9050 Phone; (603) 886-9051 Fax; e-mail://fmilkowski@wpine.com

Whether skinny or fat, Steve Dorner's freeware e-mail package **Eudora** is hard to beat. But, now that you've downloaded the free upgraded version off the Internet, aren't you just a tad curious to know what the commercial version, published by Qualcomm, is all about? Not even a little? Why mess with something that's free, right? Well, FYI, here's a brief list of new features in **Eudora 2.1 for Macintosh** by Qualcomm that are not found in Eudora 1.3.1:

Message filter (sorts and modifies messages according to user criteria); Tech Support(yippee!); Automatic attachment opening; On-line Help; Server Maildrop management (selectively fetch or delete messages from the server); Color Coding (messages can be assigned color codes); Word Services (ability to add spell checking and other applications that support Eudora's Word Services Suite); Transfer Undo (whew!); Kerberos support (security/authentication system); Multiple Nickname files; Support for uuencode and uudecoding of attachments; System 7 Drag and Drop, including the ability to drag and drop messages to other folders.

Then there's Stationary (create templates of commonly used messages for later use); Return Receipt; Nickname window can stay in foreground; Mailbox management features including sort, priority, labeling; Open mailbox from clicking on message headers; Multiple Signatures (up to two or none); Auto Attachment deletion; Faster message window display; Partial finish of Nicknames allows users to complete only the nickname extension; POP3Post (use extended POP3 servers to send mail in a more secure manner; create new mailboxes from the mailbox

Bill Gram-Reefer, based in Concord, CA, is president of WORLDVIEW, specializing in connectivity and communications. Bill has been writing about Macintosh computers since 1984. His column on Commercial Online Services appears monthly in *MicroTimes: California's Computer Magazine*. E-mail Bill at reefer@netcom.com

menu; Show all headers; Open mailboxes from the Finder by clicking on icons; Transfer message to the Outbox; and Nickname replace.

So, what's the hurt from freeware to realware? Single User, \$65; a pittance really, especially when you consider that a lot of you geeks'll think nothing of plopping down \$129 for BBEdit's most up-to-date version of the popular text editor instead of getting the last drop out of 1.1.1. Qualcomm Inc., 6455 Lusk Boulevard, San Diego, CA 92121-2779; (800) 2-Eudora or (619) 587-1121 voice; (619) 597-5058 fax; e-mail://eudora-sales@qualcomm.com

So far we've taken a look at two applications that started out poor and unknown but have become online celebrities. Here's another one that waits in the wings, looking out from behind the curtain, kinda' shy like. Still shareware, **HTML Web Weaver 2.5.1** is very close to becoming ready for prime time.

Using Web Weaver, without any previous knowledge of hypertext markup language (HTML), protocols, structure, commands, quirks, coding, or styles, this web wimp created his first world wide web page in less than one-half hour. It had a title, header, bunch of copy, a blinking lite linking an unsuspecting user to a monastic ftp site on a male-only island in the Aegean, a color graphic, and a list of my favorite places. Basic web page. So, I figure, "this is easy," and spent the rest of the weekend reading tutorials, downloading helpers, and wondering about what an anchor really is and looking at the source commands for a lot of other pages to see how they were built.

This experience, I was informed, is typical, especially since HTML isn't really all that difficult (just brain dead) and there are plenty of text editors that provide some sort of point and click access to the obscure commands while straightening out the syntax. With Web Weaver, you write or paste in the copy you want to have on your page. Then you select certain parts of copy to highlight them just as in selecting copy in any word processor. Then, you select from any of several different palettes to create titles, various size headers, make things blink, or link your disarm-the-BATF site to the White House. Most of the HTML commands are there. (Honestly I couldn't tell you what if anything is missing.) After you've formatted your text, you click on an icon that wakes up your browser and, *voila!* there's your page waiting to show its nasty self to the world.

Weaver was actually slow on a PowerPC, and worked fine for a couple of days on a Centris 610 running 7.5 with upgrade until it decided it needed a coprocessor. I didn't like the way it made type into teeny-weeny type once you tagged some text in a certain way. I can see color-coding and styles can represent different HTML tags, but 4 pt. type isn't the best.

I tried **HTML Edit** as well, which, as a HyperCard runtime stack, sets up your document in title, body, and address areas that appear as windows that can be scrolled or re-sized. But this seemed confusing and had nowhere near as easy a first-time tutorial as did Weaver. Maybe it was the luck of the draw that after not figuring out Edit I stumbled onto Weaver and the proverbial light bulb went on over my head. It could've happened the other way around, maybe, but I suspect it had something to do with my dislike for most things HyperCardish.

On the commercial front, **HotMetal Pro for Macintosh** is expected to release version 3 that answers many user complaints. Additionally, AstroByte's **BeyondPress**, scheduled to ship in June, is a new extension for Quark Express that adds an additional menu bar that lets you make images in

Quark into HTML documents. This should dress-up web pages tremendously. Astrobyte Inc.: 1800 15th Street #104, Denver CO 80202 (303) 534-6344 voice; (303) 534-6557 fax or <http://www.astrobyte.com/>

Until then, Web Weaver is simple enough. Authored by Robert Best, it includes lots of tutorial information in .html format and pointers to various online how-to sites. Web Weaver is fairly well documented. \$25 Shareware (no fee for 30 days) available on most well-stocked Mac sites, or write Robert C. Best III; 118 Leroy Street, Apt. N2, Potsdam, NY 13676.

Then again, for the \$25, just go out and get Laura Lemay's **Teach Yourself Web Publishing with HTML in a Week**, published by SAMS Publishing. This book, recommended to me by Elmo Sapwater, editor of *Professional Photography*, is the best book on the subject of authoring web pages I've seen, and a lot more helpful than some of the tutorials on the net. So get the book, 'cause sooner or later, you'll want to build your own pages from scratch without any HTML midwifery. Like we said earlier, not counting complicated forms and CGI's, there just isn't that much too it. ♦

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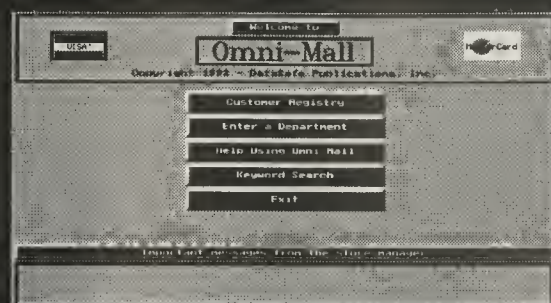
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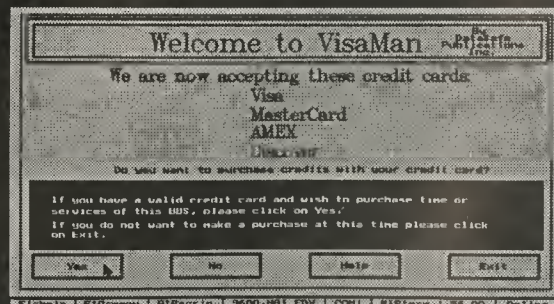


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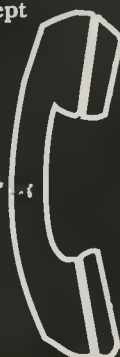
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TECHNOLOGY FRONT

by Jim Thompson
Western News Service

DCN HITS THE MARK WITH MINDWIRE

Durand Communications Network, Inc. (DCN) has combined the best elements of their products and technology to produce an extremely robust and powerful client/server system for online communications. Operating completely in the Windows environment, MindWire provides all the tools needed to create a stunning online system. Best of all, users can connect to the server system via modem, the Internet or via a network.

"MindWire combines our WIP (Windows Interface Protocol) technology, our database experience, our CLASS technology, our terminal/host experience and our client/server experience in a single package. This provides the fastest way to develop client/server applications for online or via the Internet," says Andre Durand, CEO of DCN.

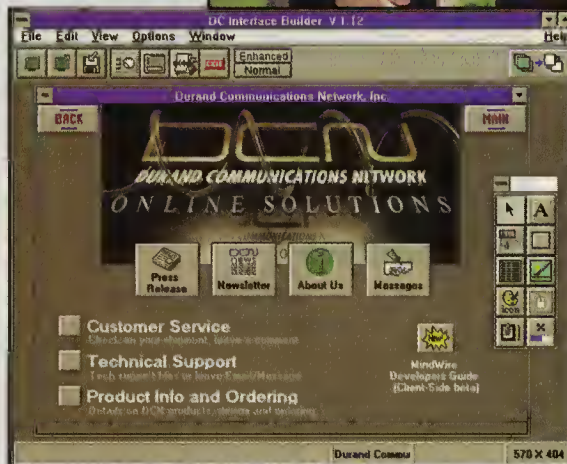
For the user, MindWire provides an extremely rich environment for the display and manipulation of information, graphics and data. The client/server architecture of MindWire means that much of the work associated with processing data is shared. So, in many cases, only raw information needs to be transmitted over communications lines. This raw data is then processed, displayed or manipulated via applications running locally under the MindWire client.

Essentially, under a client/server system, processing time and computing power are split between the two computers that are communicating. The design leverages the power, memory, storage space and speed of the desktop "client" machine without relying on the "server" to perform all of the work. It also means that the software running on the client is intelligent enough to process the raw material transmitted from the server.

The end result is speed and a truly graphical environment that can be adapted and molded to produce imaginative multimedia applications. But it is not just a pretty face. This approach to data transmission also provides the tools for the most efficient means of utilizing data.



Left to right: Andre Durand, CEO; Bryan Elliot, CTO; Craig Wirths, COO



In other words, the MindWire client/server environment does not force you to squeeze all types of data into a single format. For example, you can view database information in a word processor, but this is not the most efficient or the most flexible method. The best means for displaying and handling this information is via a client application designed specifically for it. MindWire provides all the tools you need to do just that.

PARADIGM SHIFT

Durand sees MindWire as the logical next step in a series of major shifts within the computer industry. In his view, the first shift was from DOS to the Windows environment. The next major shift was from the independent BBS or "online island" to connectivity via the Internet. This Internet connectivity allows users to connect to many different locations instead of being "marooned" on the isolated online island. The final shift, says Durand, is from the "concept of terminal host online software design" to a "client/server software design."

DCN has incorporated all of these trends into their latest product. Durand hopes it will become the "next World Wide Web of client/server applications where the focus is on database access and not document viewing."

Within this grand plan, DCN has incorporated many of the best features of traditional terminal/host systems with those of client/server. One of these is the ability to produce dynamic menus via WIP. WIP provides many of the features and functionality of RIP (Remote Interface Protocol) which allows one to easily change the look and feel of the online experience.

A true client/server environment can, in some cases, be rather boring. The reason is that everything is hard coded and, therefore difficult, if not impossible, to change. The addition of WIP allows menus to be customized with images, text, icons, scroll bars, buttons, etc. WIP menus are created in an easy to use (click and drag) Windows program. WIP menus are the interface to launching client applications. WIP menus can also launch or take the user to another WIP menu. This menu can be on the server or host system or on another host system, creating a distributed environment akin to the World Wide Web.

WIP menus are created in the DC Interface Builder, an easy-to-use graphic drawing utility. The WIP specification allows for the embedding of graphics, compressed images and sound (WAV) files. It is also possible to add embedded text file attachments with scrollable windows. There is also support for 24-bit color, True Type Fonts, Windows icons, mouse fields and buttons. One of the nice functions is the ability to add "dynamic" help bubbles for all of the objects on a WIP menu.

Once the menu is created, it is saved as a text file (files are as small as 500 kb) allowing them to be transmitted quickly. Of course, the caller does need to be using a WIP-compatible terminal program in order to see and interact with the menus. Besides working with Mind-Wire, WIP menus can be used with other BBS packages including The Major BBS, WildCat! and PC Board.

DC Interface Builder is a great little program that provides all the functions needed to easily create and modify menus.

THE MINDWIRE NETWORK

"We are creating the World Wide Web of Client/Servers. To do this we must create the Web, but, in this case, the Web is not just a document. Instead it is a document that launches an application," said Durand. The concept is to link MindWire Servers via WIP menus and the Internet.

DCN based the fundamental concept of the MindWire network on the premise that "content should stay where it originates." In Durand's view, it is not efficient to collect content and send it to a central location or hub like America on Line or another public database. Basically, the idea is that the fewer hands the original data passes through the better.

However, when the content is in scattered locations, it is very difficult to find what you need without some sort of organizing force behind it. The MindWire Network provides this organization by helping the user to find what he/she needs. According to Durand, "the MindWire Network Navigator is going to be a series of WIP menus and a series of applications that will facilitate an end user's experience and ability to find the needed content on a MindWire Server anywhere in the world." Anyone running a MindWire Server can be a part of the MindWire Network.

CLIENT APPLICATION MANAGER (CAM)

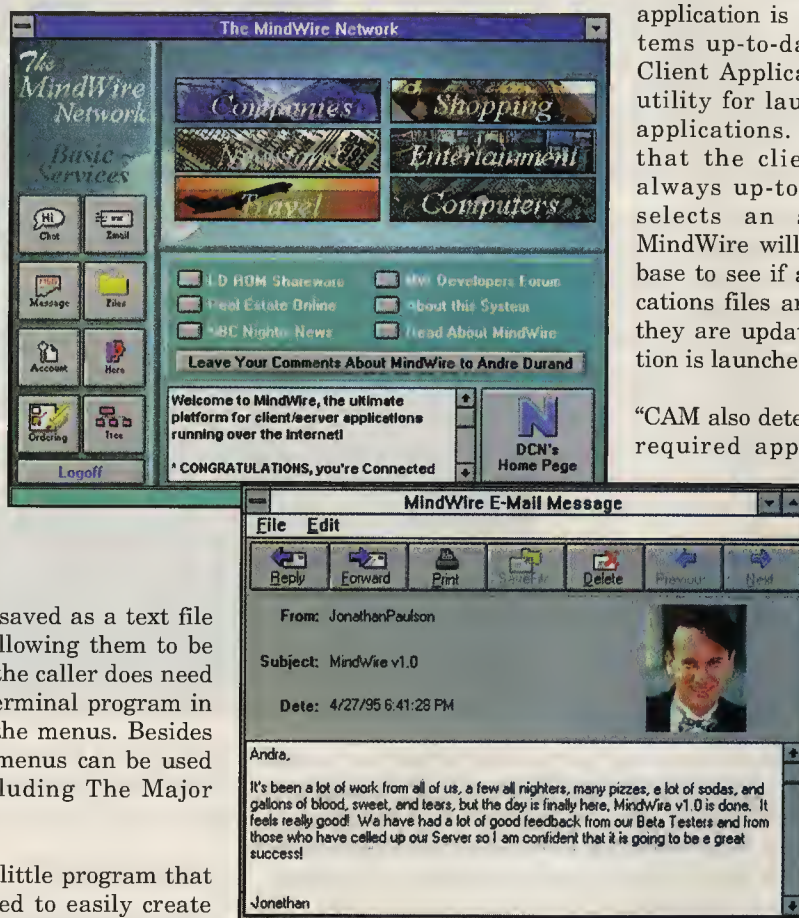
Menus and applications change - especially when there are multiple servers being operated and maintained by many different administrators. In a client/server environment, major problems can result if the client application is outdated. To keep systems up-to-date, Durand uses the Client Application Manager (CAM) utility for launching and updating applications. This utility "ensures that the client applications are always up-to-date." When a user selects an application button, MindWire will check the CAM database to see if any of the client applications files are outdated. If needed, they are updated before the application is launched.

"CAM also detects if the client has the required application components (VBXs and DLLs). If any of these components are missing or outdated, CAM will do a binary patch to update the component. This means we are sending only the few bits that are different instead of sending the entire component or application," said Durand.

EASY ACCESS

Accessing a MindWire server is easy. The initial connection (whether it is made via a modem, the Internet or a LAN) is facilitated through the MindWire Connector. This small program simply provides the connection to the MindWire system. Essentially, this is like the phone book or URL browser in a program like NetScape. It's only purpose is to get you to the first MindWire system. Once connected, you can move to other systems.

If calling via modem directly to a MindWire server, simply select "Modem dial" from the connector. If calling via the Internet, establishing a connection is equally easy. The first step is to establish a SLIP or PPP connection using Trumpet Winsock, then launch the MindWire connector and select connect via Internet.



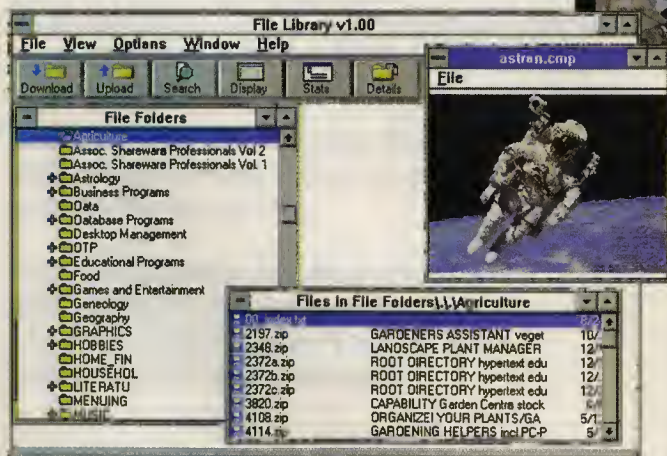
SUITE OF APPLICATIONS

The MindWire system includes a number of very nice applications and utilities. These include the following:

E-MAIL - This well thought-out electronic mail system includes a spell checker, the ability to attach files, a mail reader/browser and an address searching facility. Anything can be attached to an e-mail message, including an image or sound file which is displayed or played when the message is read. The one thing I found missing is the ability to create a message offline within the MindWire environment. Of course, you can write a message in a word processor and then import it while online.

CHAT — The chat facility includes a number of fun features including the ability to display a photo of a user whenever he/she enters the chat area. A feature called QuickTalk allows you to store “canned” phrases or comments that can be selected and sent without typing them each time. A Record feature allows you to easily save a chat session. Multiple chat rooms are also available.

MESSAGE FORUMS — A message scanning facility allows for the quick browsing of message topics. The message forum also allows for unlimited message folders, message statistics, and sorting and filtering of messages. The spell checker is available here along with a message editor that allows you to cut, copy, paste and import data.



FILE LIBRARY — This application allows network or remote users to view, tag and download files. It also provides for the use of long filenames and the ability to download multiple files and/or folders. There is support for unlimited file folders, key security and the ability to upload/download files simultaneously. There are also file search capabilities, the ability to view ZIP file contents and search capabilities.

PRODUCT ORDERING — This client application allows users to select and order products online. The system generates purchase orders and allows for the full configuration of all key aspects including billing, shipping and payment methods.

DEVELOPER'S GUIDE

These are only the basic client services included with MindWire. Durand Communications Network provides the MindWire Client Developer's Guide which allows programmers to create new client applications. The Client Developer's Guide is free and covers all the needed details on developing client applications. Although DCN recommends the use of Microsoft Visual Basic because of its ease of use, client applications can be developed using Microsoft Visual C++, Borland C++, Borland Delphi or any other development tool that can “harness OLE Automation objects.”

The “MindWire Database API” allows for database searching, browsing and updating. According to Durand, “Any ODBC-compliant database source (including dBase files, Microsoft Access files, and SQL servers) can be linked to the MindWire Database API.”

DCN will also send developer's a single-line MindWire host (includes the server and the administrator) free. The client program is also available to developers or anyone who wants a copy at no charge. Registered sysops running the MindWire server can freely distribute the MindWire client.

OPEN ARCHITECTURE

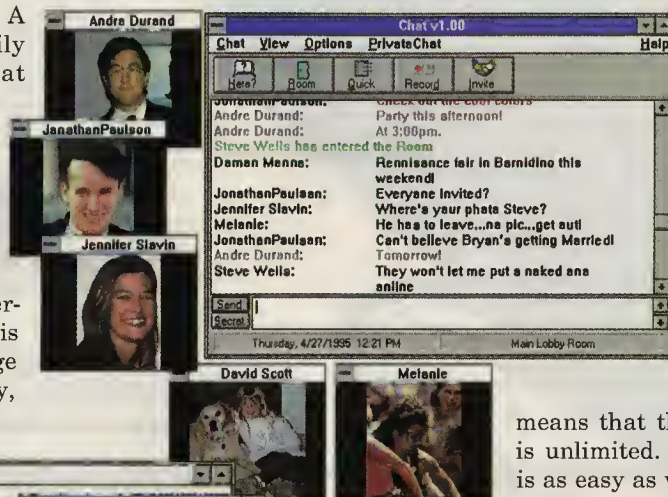
This open architecture means that the range of client applications is unlimited. Creating a new user interface is as easy as writing a Visual Basic program and is limited only by your imagination. This is the single best feature of the MindWire system.

An example of some of the possibilities with this architecture is the Classified Ads application that is included free with MindWire. This program allows users to browse categories of ads, read ads and post ads (complete with photos). The application even includes the ability to send an e-mail message to the person who posted the ad.

In addition to the Classified Ad program, a News Flash program, a Window Shopper program, and one called Internet TV are also included at no charge.

News Flash puts a scrolling message in a box along the bottom of the screen. The box can be positioned anywhere and the message can be anything. The program is similar to the “Silent Radio” that is seen in banks and other locations.

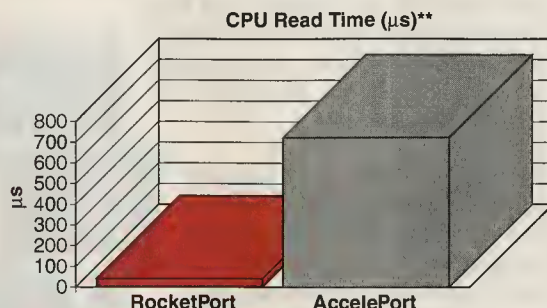
Window Shopper gives you a window with a photo of an item that can be ordered. Another window shows a list of available ads and a third gives a description of the item. A button marked “e-mail” allows you to send a message to the person posting the ad. An “order” button lets you actually place an order for a selected item. There is even a search facility so you can quickly find what you want.



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INTERNET TV

Internet TV is my favorite MindWire feature. This one gives you a simulated television screen along with a photo of the newscaster, the sponsor's logo and the text of a news story that scrolls in a box in the bottom right portion of the screen. Stories, photos and text display one after the other in a simulated TV newscast format. This one is great! It also truly showcases the power of the MindWire architecture.

To make it even more "tricky," clicking on the sponsor logo launches Netscape and takes you to the sponsor's homepage on the Internet. Double-clicking on the photo of the newscaster brings up his/her bio. Double-clicking on the TV screen brings up details on the story. This one is great! It also truly showcases the power of the MindWire architecture.

USE OF SOUND

It should also be noted that MindWire does use and play .WAV files. Sounds are an important and integral part of the system. The use of sound begins from the time you select the MindWire icon in Windows and hear a voice with lots of background echo saying "MindWire" and confines in every part of the system.

SERVER FEATURES

The MindWire Server is compatible with Windows 3.1, 3.11, NT, NT Workstation, and NT Server. It is also compatible with FILEX Server (up to 8 modems) and/or RAS Server running on a Windows NT Server (up to 256 modems per PC). Server features and applications are maintained via three major applications - the MindWire Administrator, the File Library Administrator and the Messaging Administrator.

MINDWIRE ADMINISTRATOR — This utility manages the online environment. It allows the system administrator to configure the file library, message bases, chat rooms, security and accounting information. From here one can also monitor all online services available to the users. The Administrator can also repair and compact database files, add, delete and modify chat rooms, and build graphs from system statistics.

FILE LIBRARY ADMINISTRATOR — This utility allows the sysop to configure the message folders and security features. The main features include the ability to create rename, delete folders, change folder keys, and to delete, move and respond to message.

MESSAGING ADMINISTRATOR — This utility allows the sysop to configure message folders and security features for the messaging area. Among the features are the ability to create, rename, delete or remove folders; change folder security keys; delete, move and respond to messages.

The MindWire server also creates a full audit trail to include logging on and off, sending of WIP screens, uploading and downloading of files, posting messages, etc. An Audit Trail Viewer allows you to change the way records are sorted, filter for a particular user, date or action, and to print the trail. The audit trail is a Microsoft Access (MDB format) database. An entry is written to the end of the database whenever a user performs a transaction.

CONCLUSIONS

After a number of attempts to create a full-featured online system, Durand Communications Network has hit the mark with MindWire. It is easy to use, yet contains all the tools one needs and expects to find in a modern communications system.

They seem to have thought of just about everything that affects the end-user. From the installation process which takes much of the mystery out of getting things operational to the actual execution of the various applications that make up the MindWire network, there is little that should cause even the novice user any major difficulties.

Aside from some problems directly related to the Internet (narrow band width, busy circuits, etc.) I found MindWire surprisingly stable.

The one possible stumbling block for some may be that both the MindWire server and client programs require fairly robust systems. The server requires at least a 486DX with 16MB of RAM and 15MB of hard disk space. The client requires a 386DX or faster CPU, 8MB of RAM and 8MB of hard disk space. Although most will have all the needed hardware (on the client side this is anymore considered an entry level machine) there may be some users who will find this beyond the capacity of their machine.

I like MindWire. It is well thought out and well executed. Best of all, Durand Communications has spent the time to create the tools needed to bring about their vision of the future, both of the MindWire system and the MindWire network.

(Jim Thompson is Managing Editor of Western News Service in Los Angeles, California. He also manages the Marlboro Racing News BBS. CompuServe: 72777,2677, MCI Mail: 321-4127, e-mail://jim.thompson@wnsnews.com) ♦

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A GIRL'S GUIDE TO Geek Guys

by Mikki Halpin and Victoria Maat

So your crush on the bass player from Vibrating Sandbox has finally died a whimpering death and you're wondering where to go from here. All the sinister dudes are either dating a series of interchangeable high-school riot girls in baby doll dresses and an overdose of manic panic, or permanently shackled up with some bitter old lady who pays all the bills. Which will it be, a wifely prison or a humiliating one-night-stand? Into this void of potential mates comes a man you may not have considered before, a man of substance, quietude and stability, a cerebral creature with a culture all his own. In short, a geek.

WHY GEEK DUDES RULE

- A. They are generally available.
- B. Other women will tend not to steal them.
- C. They can fix things.
- D. Your parents will love them.
- E. They're smart.

WHERE THE GEEK DUDE LURKS

Although they're often into alternative music, geek dudes tend not to go to shows too often. Instead you'll find them hanging out with their friends, discussing the latest hardware revolution or perfecting their Bill Gates impressions. You know how some people wear T-shirts with their favorite bands on them, thus showing that they went to certain shows? Geek dudes wear T-shirts with the logos of software companies on them, thus showing that they are up on the latest, um, releases. A small, though convivial, rivalry may be detected here amongst the geek dudes. Try wearing one yourself and see if he strikes up a conversation.

The best way to meet a geek dude is through the Internet. All geeks harbor a secret fantasy about meeting some girl in cyberspace, carrying on an e-mail romance in which he has the chance to combine an activity he's comfortable with, computing, with one he's uncomfortable with, socializing. To many geek dudes, cyberdating is just an advanced form of some kind of video game, but

they're frustrated by a lack of players. Their lack is your strength.

IMPRINTING

You might notice that these men harbor strange ideas about how the world works and particularly strange ideas about women. There is a reason for this. Because they've had limited interpersonal experience, geek dudes must look elsewhere for behavior models. Lacking a real world social milieu, geeks often go through a transference stage with such narratives, and try to model their interactions on them. Thus, certain media images and themes come to have an overly cathected, metaphorized reality to them, while the rest of us view such programming as mere entertainment. Case in point, our next topic...

THE TREK FACTOR

If you're not up on your Star Trek, you can forget about getting or keeping a geek dude. And we're not just talking vintage-era Captain Kirk and Spock, either. You've got to be up on your The Next Generation, your Deep Space Nine, your Babylon 5. Armed with your own knowledge of Federation policies, you can better gauge when and how to act. The sexual politics of Star Trek are pretty blunt: the men run the technology and the ship, and the women are caretakers (a doctor and a counselor). Note the sexual tensions on the bridge of the Enterprise: the women, in skin tight uniforms, and with luxuriant, flowing hair. The men, often balding, and sporting some sort of permanently attached computer auxiliary. This world metaphorizes the fantasies of the geek dude, who sees himself in the geeky-but-heroic male officers and who secretly desires a sexy, smart, Deanna or Bev to come along and deferentially accept him for who he is. If you're willing to accept that this is his starting point for reality, you're ready for a geek relationship.

ONCE YOU'VE NABBED HIM

Catching that geek guy is only half the battle. Keeping him by your side is another story altogether. I was privileged to speak with Miss Victoria Maat,

who not only got herself a geek guy, but was clever enough to marry him just a few short months ago. She interrupted her newlywed bliss to give us a few tips on the care and feeding of a geek man:

Geeks are sensitive and caring lovers and husbands. If you can hang with the techno-lifestyle, they make the best mates. They are the most attractive people, not flashy or hunky, but the kind who get cuter and more alluring over time (I told you she was a newlywed). Definitely give geeks a chance.

GEEK CUISINE

Geeks tend towards packaged, junk foods because they prefer to work and think and aren't all that into cooking for themselves. Make sure your geek understands that you aren't merely a replicator, and provide him with home-cooked food. A batch of chocolate chip cookies will let him know that you love him. You do have to monitor your geek for weight gain; however, remember that most of their days are spent sitting and staring at a monitor.

GEEK LIFESTYLE

The geek dude has long work habits and tends to bring his work home with him. He seems permanently connected to his hard disk. You must at least appear interested in his work. Generally, a solid understanding of the computer is a must; if you can't master this, you should at least be able to talk the talk. Most geeks are anal retentive and get stressed about details that appear insignificant. Be understanding, put on your best Deanna Troi face (see above) and empathize.

To relax, geeks love to play the latest computer games. Let him play Myst or Chuck Yeager's Air Combat for hours if he wants to. Act concerned if he's stuck or has just been ambushed by three MiGs. My geek loves to try to help people on the Internet who say they're stuck in Myst. He comes up with clever riddles instead of directing them point blank. Geeks also like to go to sci-fi and Japanese animated movies, again, a basically harmless vent for your man.

GEEK BUDDIES

Many geeks extend their work friendships into what they jokingly refer to as RL (Real Life, also known as "that big room with the ceiling that is sometimes blue and sometimes black with little lights"). The greatest thing about your geek's buddies is that you can feel secure in setting them up with your girlfriends. They may feel awkward around females at first, so don't overwhelm them. In time they'll come out of their shell and realize that you're into the same things they are.

POST-IT NOTE

I thank Victoria for the above advice. I must say that when she read my draft of the piece, before writing her section, she asked her husband which one he thought she was more like, Deanna or Beverly. Howard, the devil, immediately replied that he had always thought Victoria was actually most like Ensign Ro Laren, a cute character with a slight authority problem who is always in trouble (this is fairly apt). This exchange is interesting for several reasons:

Howard had already thought about who she was most like.

He could summon up characters from seasons past with ease.

Victoria actually knew who he meant.

Folks, I think this marriage will last.

ONE LAST THING

Because they have been so abused and ignored by society, many geeks have gone underground. You may actually know some and just haven't noticed them. They often feel resentful, and misunderstood, and it's important to realize this as you grow closer to them. Don't ever try to force the issue, or make crazy demands that he choose between his computer and you. Remember, his computer has been there for him his whole life; you are a new interloper he hasn't quite grasped yet.

Geek dudes thrive on mystery and love challenges and intellectual puzzles. Don't you consider yourself one? Wouldn't you like a little intellectual stimulation of your own? We thought so.



THE COMPLETE Geek TEST

PART - I

ARE YOU A COMPUTER GEEK?

1. A friend opens a magazine full of scantily-clad members of your preferred sex. Do you:

- A. Openly Ogle
- B. Act Non-Chalant (sic)
- C. Comment "Gee, that's got to be at least 400 dpi, color!"
- D. Crumple up the pages and stuff them in your mouth.

2. You're at a party. Someone comes over and asks you your star sign. You:

- A. Tell them to bugger off
- B. Lay them one in the groin, then tell them to bugger off.
- C. I don't go to parties.
- D. I don't get invited to parties.

3. You're at the head of a large line in front of a cash-register in a large department store. The register gives a >beep< and stops dead. You:

- A. Wait patiently
- B. Plant all the stuff you were going to buy in a nearby baby carriage and call the store detective (to while away the time)
- C. Break out your ever-present C64 notebook and try to debug the thing
- D. I don't know

4. You're shopping for some personal hygiene equipment when the pharmacist runs up saying the prescription databass on his 386 is corrupt. You:

- A. What's a prescription database?
- B. What's a 386?
- C. What's personal hygiene?
- D. What was the question again?

5. A friend wants to borrow a record from you. You:

- A. Lend it out, and tell them it's a boomerang.
- B. Tell them to go buy it.
- C. Consult the database to see that status of the record concerned
- D. Sell it to them for a beer.

6. You'd most like to meet:

- A. The person who wrote "Gulag Acapeligo"
- B. The person who wrote "War and Pspace"
- C. The person who wrote MSDOS
- D. A person who can write

7. You win a "Shopping Spree" at a local supermarket. You've got one minute to pack a cart with as much stuff as you can. You start:

- A. In the Liquor Section
- B. In the Confectionary Lane
- C. At the Pencil Bar
- D. At the cash register

8. You've been hit by a car and your life flashes before your eyes. The thing you remember most vividly is:

- A. Your Mother's voice as a child
- B. Your first Love
- C. The Ascii table.
- D. The tire pressure was maybe a little too high

9. You get to compete on The Dating Game for a blind date. You have one statement to change the chooser's mind about you. You say:

- A. I've got a 12 inch tongue
- B. I can go all night
- C. I'VE GOT A 386SX with 64K Ram Cache
- D. I've killed 5 people

10. You feel naked without your:

- A. Electric Guitar
- B. Wallet
- C. VT100 reference guide
- D. Axe

11. You see someone standing on a ledge, about to jump. You can save them if you say the right thing. You say:

- A. I know things are bad, but do you want to talk about it?
- B. I feel you just need someone to talk to
- C. Want to come and play on my C64?
- D. I bet you haven't got the guts....

12. You told your best friend the first time you:

- A. Had Sex
- B. Had Oral Sex
- C. Got a Ram expansion
- D. Killed a cat.

13. No-one understands you like:

- A. Your Mother
- B. Your Father
- C. Your PC
- D. Your Parole Officer

14. For your 18th birthday you wanted:

- A. A Car
- B. A Shaver
- C. A C64 Cassette Drive
- D. Some Piano Wire, and the Neighbours Cat

SCORING

Mostly A's:

You're normal. Boring Boring Boring. You're the sort of person who'll just fritter their way through life enjoying themselves and having a good time. Shame on you!

Mostly B's:

You're mostly normal. Nothing a little ECT can't clear away in any case. You almost make it into the "Mostly A's" above.

Mostly C's:

Geek Alert! Break out the pocket protector! With a set of horn rims and a pocket calculator, you're ready for Revenge Part #72. You can be the person that gets beat up all the time.

Mostly D's:

So you're a sociopath; But that doesn't mean you're a bad person! Just keep taking the Lithium and everything'll be fine.

TAKEN FROM THE JOKE OF THE DAY LISTSERV

Telnet into the World's Biggest

Archie-smarchie! If you have Internet access and you're looking for software, now you can just telnet into the most extensive shareware file collection in existence.



On Exec-PC, the world's largest BBS since 1983.

We've got over *half a million files* online and ready to ftp or download, including an enormous adult collection. And more files are added every day. Pay one incredibly low membership fee and you can download to your heart's content. And if that's not a fantastic deal all by itself, consider this: when you telnet in, you have FREE local access! (If you're not cruisin' the Net, this is reason enough to hit the Highway.)

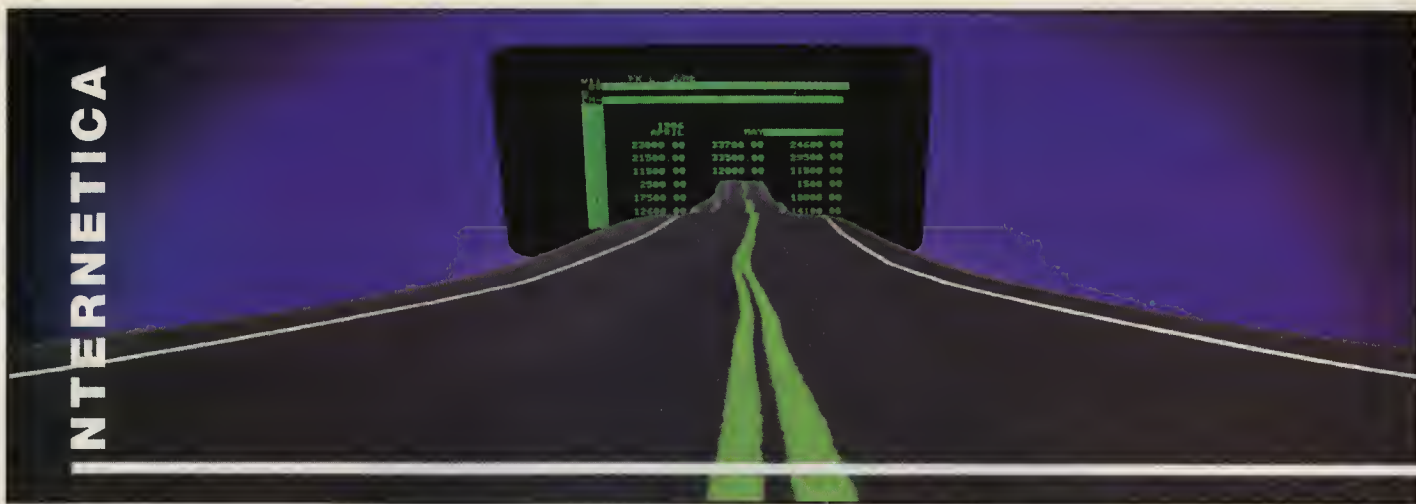
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WINDOWS STATE OF THE E-MAIL ADDRESS

by Jack Rickard

Internet connectivity for personal computers got a big boost with the increasing popularity of Microsoft Windows, which can multitask (after a fashion) and more specifically through the use of a standard **WINSOCK.DLL** program that performs all TCP/IP stack functions. WINSOCK is the program, but it is also an application program interface specified in a published WINSOCK Version 1.1 specification. WINSOCK 2.0 is expected shortly to advance this concept somewhat beyond TCP/IP even. But its purpose is to provide a standard program interface to network resources.

The least exciting but generally most useful function of the Internet remains basic electronic mail. And e-mail has gained a big boost in usefulness from the Internet. The Internet acts as a common electronic mail backplane for online services nearly everywhere at this point. If you have an account on a commercial service, an Internet service, or on most bulletin boards, you have an e-mail account and can send and receive electronic mail quite universally.

But beyond that, the move to dialup TCP/IP SLIP or PPP accounts to browse the World Wide Web provides a full Internet Protocol connection. This offers the opportunity to connect your desktop directly to the system itself and move the electronic mail agents off onto your own desktop for the most part.

Internet mail actually uses the Simple Mail Transport Protocol or SMTP to send and receive electronic mail between sites that are permanently connected to the network. To SEND electronic mail, dialup SLIP/PPP users can use SMTP quite easily - simply send it. You will normally have an SMTP "server" somewhere on the network to use as an intermediary, but these are widely available with little or no security checks to see who is using them to send mail. You may want to ask the Internet Services Provider that provides your SLIP/PPP account for the domain name or IP number of the SMTP server at their site. The primary role of this server is that it will keep trying to deliver mail for a day or two if the server for the recipient is temporarily down.

To receive mail is a bit of another matter. SLIP/PPP callers are normally intermittent via dialup modem. If someone

sends you an e-mail message and you are not connected to the network at that moment, the message would normally be returned to the sender. To handle this, the Post Office Protocol version 3 (POP3) was developed. POP3 allows your provider to receive SMTP mail on your behalf, and hold it until you call again on your SLIP/PPP account. In this way, any time you make the connection you can collect the mail from your host service.

To use this function, you need an electronic mail program capable of sending electronic mail via SMTP and receiving electronic mail via POP3. You will also need a POP3 logon name and password from your host provider, and the name of the SMTP server at their site.

The e-mail programs available to perform these functions have been a bit spartan. Most packages received from providers today feature some basic e-mail programs. About two years ago, an Internet Request For Comment (RFC) was completed for Multipart Internet Mail Extensions to enhance the basic e-mail capabilities on the Internet. This MIME specification described methods of attaching a variety of image, audio, video, and other file types to electronic mail messages and passing them through the Internet.

As a result, we thought it might serve some useful purpose to overview some of the newer Windows e-mail program releases with a view to their ease of installation and use over a Winsock SLIP/PPP connection.

There are several very low cost or even free Windows programs enabling electronic mail in this fashion. We would perceive Qualcomm's PC Eudora to be the most ubiquitous program on the market and we've written about it in the past. It has been distributed as shareware for several years with certain features enabled only in the "registered" version. It is actually available for both PC and Macintosh. ConnectSoft, by contrast, HAS been a commercially available e-mail product. It was originally developed to allow you to get your e-mail from services such as CompuServe and MCI Mail. But they have recently released a version that includes the Internet TCP/IP connectivity, and in fact last month released an "Internet Only" version of the program as freeware available from their web site. Finally, a gentleman named David Harris in New Zealand has been developing a program called Pegasus Mail since 1990. Originally developed for Novell Networks and the MHS mail system, this program has taken

on some remarkable functionality in recent months and a June 18, 1995 release of version 2.0 is extremely interesting. It is also totally free of charge and fully featured. You can't actually register it if you try.

PEGASUS MAIL

Pegasus Mail was originally developed by David Harris of Dunedin New Zealand in 1990 as an electronic mail system for Novell Networks. It used the Novell Message Handling System (MHS) and was presented as a free alternative to such e-mail standards as Lotus cc:Mail. The program is copyrighted, but is NOT shareware. It is distributed for free. Harris does sell reference manuals for the program, but very specifically does not require registration of the program and insists the manuals are absolutely a voluntary support of his efforts.

A brand new version of the Windows implementation, titled WinPMail v2.0, was released June 18, 1995 and sports some laudable features. Pegasus has a sufficient number of features, hidden in various places in the program, that we would classify it as a mailer for power users. It is not as easy to use as E-mail Connection for example, but it does more. There is no INSTALL or SETUP program, you must create a directory and unzip the files into it, set up a new Windows Group, and add a new program - all manually. And it offers a whole series of options for connecting to your host that may be slightly confusing at first. But it does sport features.

For example, you can define as many "folders" for mail and documents as you like, and easily "drag and drop" mail between the folders. But to expand a window to full screen, there is nothing to click. You must press SHIFT-F4, an oddity we thought.

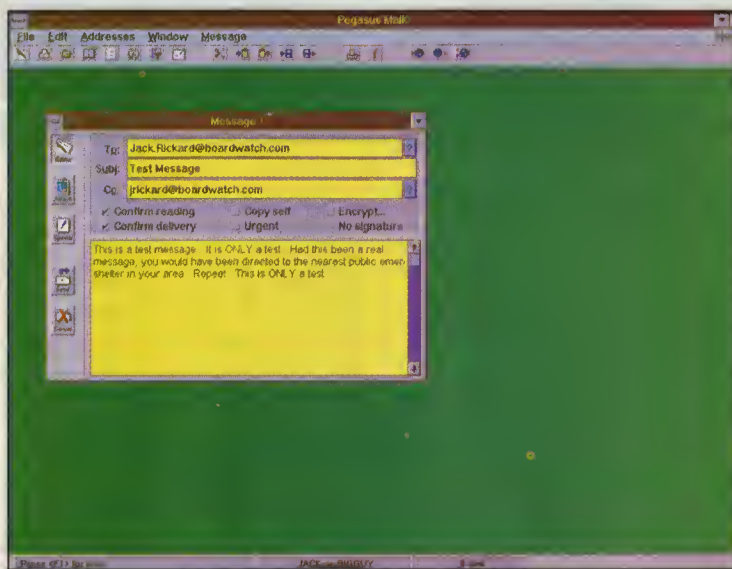
It also sports a spelling checker. We found the suggested replacements offered were generally way off the beam with this checker, but we could eventually scroll down the list of possible words and find what we wanted.

Pegasus provides a filter mechanism you can apply to all incoming mail. These are actually quite powerful and allow you to highlight some mail, and make other inbound messages go to the bottom of the pile. You can even configure this so that specific inbound messages trigger the operation of other software programs. I suppose you could send yourself a GOODNIGHT message from a remote location anywhere on the network and have this trigger a program to shut down your computer entirely, for example. The filter works not only on addresses and subjects, but can scan the full message text.

The program can still be used as an MHS mail program and is fully compliant with the latest SMF-71 specification for

Netware Global MHS. We do have a Novell network, but didn't really put the MHS services through their paces. The Internet mail was the topic of interest.

Pegasus sports rather detailed configuration options and it can be an adventure to determine what they are. The file attachment feature, for example, is just enormously powerful - and a bit confusing. Pegasus NORMALLY sends each file as a separate e-mail message. But you CAN specify that it send all attachments in a single message. You just have to know where in the configuration to do so.



The heart of the MIME specification revolves around methods to enclose different types of files within e-mail. Pegasus can send attachments in the commonly used UUENCODED form, in the Macintosh BINHEX form, or in MIME's BASE64 coded form. You can attach any number of files to a message, and you can even specify what TYPE of file it is (MIME JPEG, MIME GIF, etc.) and which encoding form to use.

We also found it exceptional that this mailer allows you to configure "helper" applications after the fashion of the Netscape web browser. You can configure viewers for GIF, JPEG, MPEG, etc., and use them automatically to view such files when received.

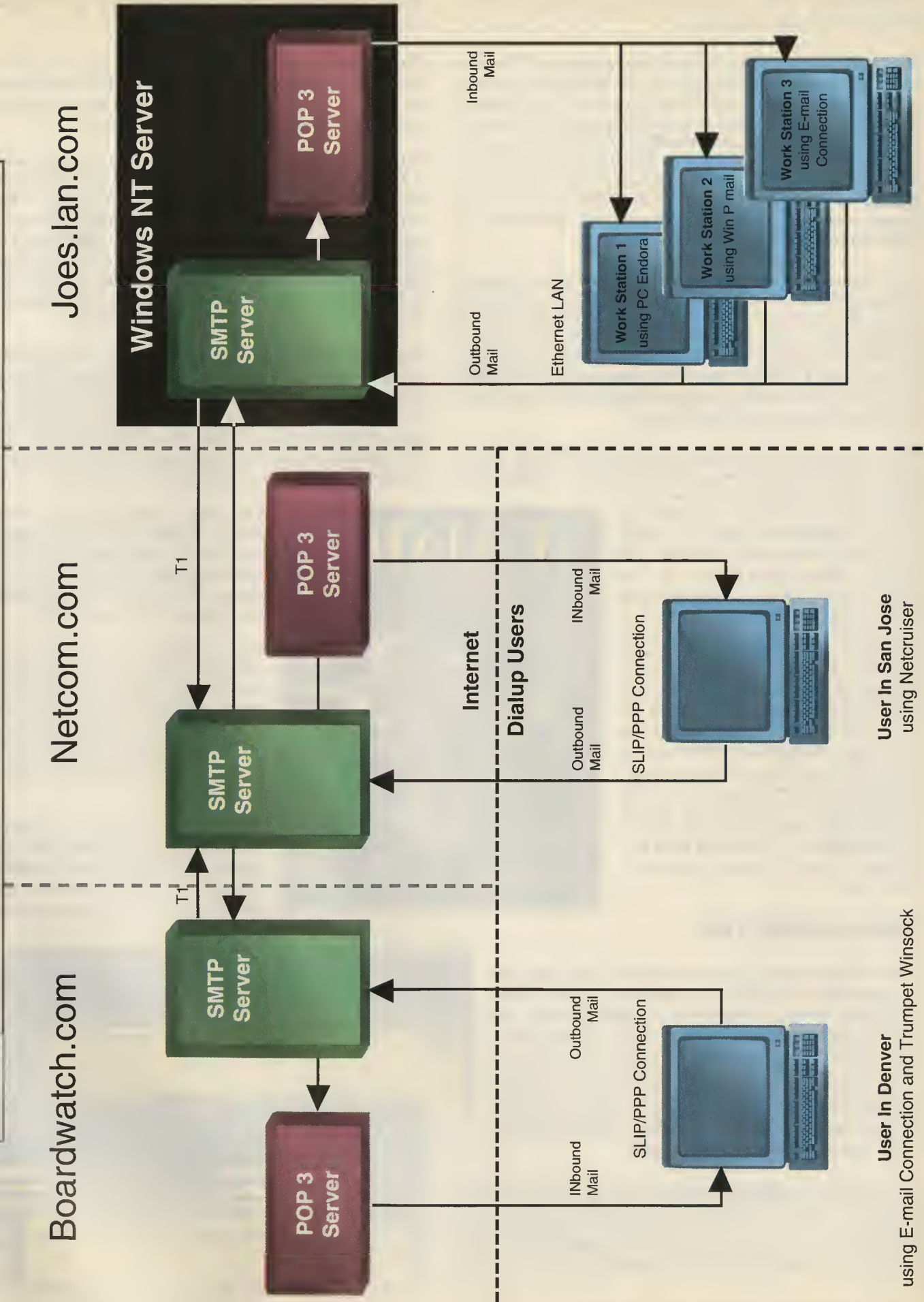
Pegasus' MIME implementation is not precisely what we had envisioned in a MIME-compliant mailer. The MIME concept is that you can display an e-mail message on-screen with graphics appearing in the proper place in text, audio and video clips appearing in the message that you could click on to view or hear, etc. In other words, it would appear to be something of a cohesive document. But Pegasus, when receiving messages, presents you with a list of the components, and you can choose to read or view each of them individually with the assistance of the helper programs. This is a bit clumsy, but better than plain text e-mail. We think the ultimate MIME mailer will actually use something along the lines of the World Wide Web's HTML to handle this chore better.

The overall interface for Pegasus is a little cluttered because of the wealth of options. You can run it reduced to an icon, and it will automatically check for mail periodically.

The program offers some real power features. First, it sports what Harris calls Notice Boards. These are actually threaded message conferences much like any BBS. Coupled with the Novell MHS access, this program basically allows you to run a BBS on your LAN.

WinPMail 2.0 also features "extensions." This is basically a WinPMail Application Program Interface (API) featuring some 80 WinPMail specific functions. You write a Windows Dynamic Link Library (DLL) program in Borland C and can call functions to create messages, send messages, etc. Most

INTERNET SMTP / POP 3 E-MAIL OPERATION



such programs revolve around the concept of forms, but you can also write finger servers etc.

WinPMail also supports "user-defined gateways." This is a very open feature allowing you to use WinPMail with any type of mail transport not already included. For example, included with the program is an example gateway written by Brendan Murray to gateway WinPMail to UUCP dialup connections using Waffle BBS' free UUCICO program. Many BBSs use the Waffle UUCICO to exchange Internet mail with a UNIX host using a dialup UUCP (UNIX to UNIX Copy Program) account. Using this gateway, you could link your LAN to Internet e-mail very inexpensively.

With regards to such gateways, WinPMail works perfectly with an SMTP/POP server program titled Mercury, also written by Harris. Mercury is a series of Netware Loadable Modules that run on the Novell server. Using Mercury, you don't NEED an Internet Service Provider to handle your mail. You just need a TCP/IP connection to the Internet. WinPMail also works with Charon, a similar Novell NLM product written by Brad Clements of MurkWirks.

The combination of Newmail filters, Notice Boards, extensions, user-defined gateways, and the wealth of configuration options makes Pegasus the most powerful e-mail agent we've seen. With the current WINSOCK support, it works just as well for standalone SLIP/PPP users as it does on the office LAN. The Windows interface is a bit cluttered but useable and you essentially trade a more complex interface for much more power. The author very specifically classifies it as Free Software, though commercial sites will probably want to site license the manuals at \$350 for unlimited users, in order to get the most from the product. WinPMail is available from <ftp://risc.ua.edu/pub/network/pegasus/> in the file WINPM????.ZIP or from David Harris, PO Box 5451, Dunedin, New Zealand, ; 64 3 453 6880 voice; 64 3 453 6612 fax; e-mail: //David.Harris@pmail.gen.nz

E-MAIL CONNECTION

ConnectSoft has made some headway in e-mail since the introduction of their E-Mail Connection in 1993. E-Mail Connection actually filled a bit of a dream of mine - just a couple years too late. It allowed you to set up connections to MCI Mail, CompuServe, Prodigy, and other popular online services and deal with ALL your e-mail out of one program. You could contact each service, collect all your e-mail, and then respond to it. As it so happens, we were heavily into Internet mail by this time and the e-mail island problem was going away.

The company introduced a product last year titled KidMail Connection. John C. Dvorak babbled incessantly about it and finally gave it a Dvorak Award for Excellence in Telecommunications at last year's ONE BBSCON. It is a neat package - very easy to use and designed to allow kids to

do the e-mail thing. If you don't have one for the spawn of your loins, you're a BAD daddy.

The company has also enjoyed several lucrative alliances, most notably with internetMCI BUSINESS as their e-mail package. But the software has always been commercially marketed - though at a pretty reasonable price.

This past June 12, they released an Internet-only version of E-Mail Connection that is fully functional for WINSOCK TCP/IP applications and is totally FREE of charge. It does not contain all the MCI Mail, CompuServe, and other access features. It only works via the Simple Mail Transport Protocol (SMTP) and Post Office Protocol (POP3) over a SLIP connection or over LAN via WINSOCK. But if you have that kind of connection, you probably don't NEED an e-mail access function directly to MCI Mail, etc. For us, it's ideal.

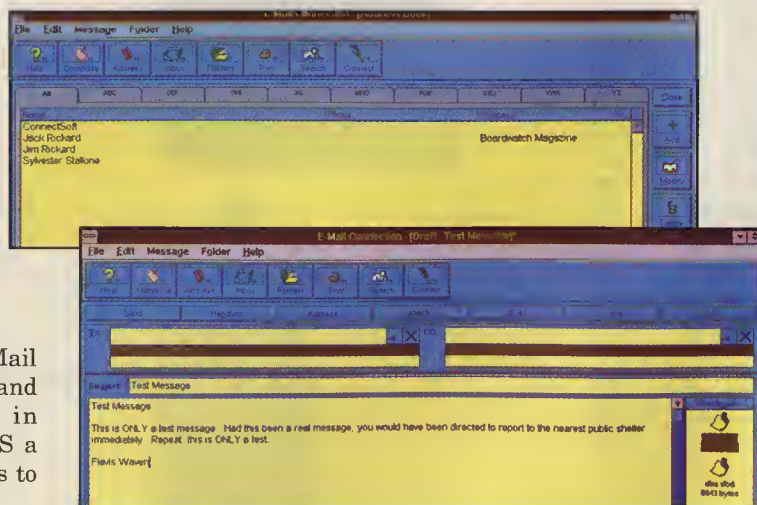
The program is available at the company's World Wide Web site at . You simply click on the HERE function and download the E-Mail Connection 2.5 Internet Edition in the file - about 1.3 MB. It's been up since June 12, and by June 22 the page counter indicated 20,104 hits, so we have to believe the web site distribution ploy is working pretty well here - about 2,000 downloads per day on average with no press as yet.



The setup of this program is extremely simple. In Windows File Manager, you run the file and that's about it. There are some directory defaults you can change if you just like participating in the process, but it goes right in.

The program sports the cleanest Windows interface we have ever seen for an e-mail package. In fact, it sports TWO interfaces - the simple one and the complicated one. The complicated one is much simpler than anything else available and it truly makes this program a joy to use.

The program is really quite fully featured. It sports a phenomenal spelling checker, and a hierarchical series of file folders you can sort and store mail in various ways. The program actually



supports multiple users from the same program. You can also very easily configure fonts for both the application and for your message text and even change the "wallpaper" to whatever Windows .BMP you like.

The address book is simply a pleasure to use. Again, a very simple layout, but you can store not only e-mail addresses, but voice, fax, streetmail, etc. in the book. Best, when composing mail, you simply click on the given name from the list and it fills in the Internet address for you. Or you can type in the name (Jack for instance) and it will find the Internet address and enter it for you. It also has a function to automatically capture inbound e-mail sender addresses and add them to the book. Cool. In fact, you can even capture listed recipients for multicopy messages you receive if you like.

File attachments are fairly basic. But it does support both UUENCODE and MIME BASE64 encoding. Again, to use it is a delight. You browse a file to attach, and it appears next to your message with a little pushpin icon and the name of the file off on the right hand side of the screen.

The program can be configured to check for your mail ever so often in the background.

Overall, this is the best design and interface for e-mail we've seen anywhere. The program is free, does the basic stuff, and this company is a delight to work with. Despite the fact that we had their free software, we did call their technical support line at and talked to Andy. He did note that they preferred to support the free product by e-mail, but unbelievably, he said that since we were already on the line, (he didn't know us from Adam's Off Ox) he'd go ahead and help us.

The heartbreaker was that despite our total mesmerization with the interface, we couldn't get the POP3 side of the program to actually pick up mail. We actually gave Andy our account logon on the server so he could go play with it, and he called back several times over the course of the afternoon to compare notes. NOBODY supports software like this. It was unbelievable. If things don't go well at ConnectSoft, we think we know where Andy can do pretty well in Colorado.

It took a few days to figure out the problem, but ConnectSoft's Director of Technical Services Brian Silvey called us back with

the solution. Apparently, our particular POP3 server choked on the LIST command issued by E-Mail Connection. The fix is simple. Open the file `_INTRNT.MTA` using Windows Write; do not convert the file to **WRI** format. There are two instances of the command **LIST**, both of which are followed by a blank space and a "box" character - `<space><null>` to be precise. Leave the first instance of **LIST** in the file alone. Find the *second* instance of "**LIST** `□`" and make a copy of the box character. Highlight the blank space and copy the box character over it; you should now have the string "**LIST**`□□`" in place. Do not simply delete the space. Save the file in text format, run E-Mail Connection, hit the Connect button and the mail will arrive. Silvey advised us that the fixed version is now online for distribution.

The program released as a free product is apparently rather deliberately aimed as a Eudora killer. "We believe that E-Mail Connection is the best e-mail package for anyone who sends and receives e-mail on the Internet," said Bob Dickinson, ConnectSoft vice president and general manager of Consumer Online Products and Services. "By offering it for free, there is no doubt in our minds that thousands of Internet users will try it for themselves, agree and use it instead of other, weaker interfaces such as Eudora." Dickinson noted that E-Mail Connection Internet Edition users will be able to upgrade to E-Mail Connection v.3.0 or Internet Connection V.3.0 upon their release in August.

E-Mail Connection also supports the Microsoft MAPI interface for e-mail. We think this one will be a winner and you just can't beat the price. ConnectSoft, 11130 NE 33rd Place, Suite 250, Bellevue WA 98004; (206)881-7747 voice; (206)869-0252 fax.

On the interface, ease of use, and superb address book and spelling checker, we would probably pick E-mail Connection for Internet 2.5. Power users who want to develop e-mail powered programs, interface mail to a variety of transport methods, or make use of Novell's Netware Global MHS will prefer WinPMail 2.0. Both programs are excellent e-mail utilities distributed entirely free of charge. We would like to see more headway on seamless MIME functions to handle audio, video, and graphics files on par with the World Wide Web in future e-mail products. ♦

CONSUMMATE WINSOCK APPS by Forrest Stroud

Forrest H. Stroud is a senior at The University of Texas at Austin. He is currently pursuing a degree and career in Information Systems and Data Communications Management. Stroud can be reached via e-mail at Neuroses@mail.utexas.edu.

With every major company starting to get into the integrated 'net access software market, it's quite refreshing to see some of the smaller companies beating the Microsofts and IBMs at their own game. In the next few months, look for some excellent packages from the likes of Quarterdeck, Navisoft (a subsidiary of America Online), and NETcetera. While still in pre-release development, all three of these companies have packages which will hit the market long before anything from the big boys.

These integrated 'net packages are likely to be the next killer apps; what average user won't want a package that includes everything needed to get con-

nected to the 'net easily. In addition to accessing software, these packages will also include web browser, newsreader, mail, ftp, and telnet applications - what more do you need to get started?

This month, in addition to reviewing several very useful apps, I'll reveal one of the best kept secrets on the 'net - NETcetera. Currently, NETcetera is an extremely useful mail client (second only to Pegasus Mail). However, NETcetera's real value lies in its potential. If its soon-to-be added newsreader, ftp, and telnet apps are anything like the mail client, this could be the most useful app on the 'net next to Netscape.

NETcetera

Desc: A very solid mail client, with integrated newsreader, ftp, and telnet apps to be added soon

Positives: Strong, feature-rich mail client; soon to be a complete integrated 'net access package

Negatives: Expensive price tag, lacks advanced filtering, cluttered desktop on smaller monitors

Location: <ftp://ftp.airtime.co.uk/netcetera/>

Filename: NETCETRA.ZIP

Status: Commercial software - \$79.50. Free 21 day evaluation

Authors: Ian Turner and Mike McCuster

Rating: 4 Stars



It's not every day that a gem is discovered amidst the debris that makes up a lot of the 'net, which is why I was so surprised after finding a gem in a program called NETcetera.

NETcetera is a fully integrated MDI (Multiple Document Interface) mail client that definitely merits checking out even though it is a very young program in terms of development. NETcetera currently integrates a finger client and a text editor with its mail application. Future releases will integrate complete newsreader, gopher, ftp, and telnet apps. If these additional clients are anything like the current mail application, NETcetera could very likely become one of the best integrated 'net suites on the market.

Currently, NETcetera supports SMTP and POP3 e-mail protocols with MIME 1.00 compliance and internal UUencoding/decoding features. NETCetera sports almost as many features as Pegasus Mail, including drag and drop maintenance, mailing list generation, address books, and quick mail sorting (with more sorting options than even Pegasus Mail). Multiple users, mailing aliases, quick mail redirection, and kill facilities are additional features of NETcetera. One of the most intriguing aspects of NETcetera is its offline centrality - all mail is read and composed offline. There's even a timer to help keep you aware of how long you're online when sending and receiving messages.

Perhaps the best aspect of NETcetera is its support. Besides having one of the largest and most complete online help systems I've seen for a mail client, the authors of NETcetera guarantee a response by the next day for every message received requesting help!

NETcetera does have a few drawbacks, the most noticeable of which is the cluttered desktop that can result on 14" and smaller monitors. Also, NETcetera lacks the advanced filtering capabilities of Pegasus Mail. Most importantly, there is one area in which NETcetera doesn't even come close to Pegasus Mail: in terms of price versus value, NETcetera is currently too costly to compete with Pegasus Mail. However, with the integrated clients soon to be added to NETcetera, this could change in the near future.

PowWow

Desc: Dynamic text-based conversation and Netscape cruising in one package

Positives: Conversation without the need for knowledge of IP addresses; Netscape "cruises!"

Negatives: Cruises only work with Netscape, possible server delays

Location: <ftp://tribal.com/pub/ftp/>

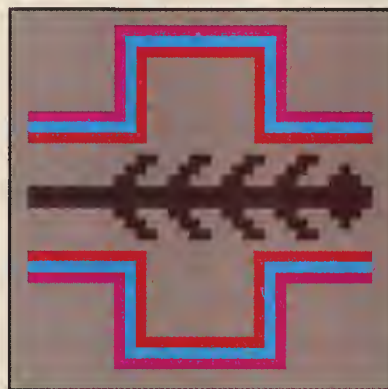
Filename: POWWOWxx.zip

Status: Freeware

Company: Tribal Voice

Rating: 4 Stars

How would you like to take up to four of your closest friends on a cruise through Netscape? How about being able to talk to an associate without needing to know his/her Internet Protocol (IP) address - much less what an IP address even is? PowWow gives you the opportunity to do both of these tasks and more. By registering yourself with the PowWow server, anyone on the Internet who is also using PowWow can contact you for text-based one-to-one conversation - all they need to know is your e-mail address!



Users can also send files to each other while conversing. PowWow is a dramatic improvement over clients like WinTalk and Sticky Notes, which force you to know the IP address of the person you want to communicate with. As with VocalTec's Internet Phone, even users with dynamic IP addresses can send and receive calls.

If text-based conversation gets old after a while and adventure beckons, try PowWow's "cruise control" feature. By launching a cruise, you assume leadership over up to four followers - Netscape will launch on each machine, and as the tour's leader, you call the shots and take the others on a tour of your favorite Internet sites.

The only downside I noticed with PowWow is that the server sometimes hangs when attempting to acknowledge your registration (registration validation must be performed every time PowWow is loaded), which means you might get stuck in the harbor before you can actually start cruising the Netscape seas.

WSTBar

Desc: Internet application manager and quick launch toolbar

Positives: Efficient management of internet apps via a toolbar, automatic launching of 'net apps

Negatives: Toolbar isn't easily configurable or resizable

Location:

<ftp://oak.oakland.edu/SimTel/win3/winsoc/>

Filename: WSTBARXX.ZIP

Status: Shareware - \$10

Author: Joel A. Gerber

Rating: 4 Stars



Like the Internet Control Center (reviewed in the June '95 issue of *Boardwatch*), WSTBar allows you to run all of your favorite WINSOCK apps from one central toolbar manager. WSTBar allows for up to ten Internet clients in its toolbar, including WINSOCK, e-mail, news, WWW, FTP,

gopher, telnet, finger, phone, and IRC clients. Also, one of these clients can be configured to load on the startup of WSTBar. One of this program's advantages over ICC is the ability to include icons to represent the clients available. Unfortunately, the maximum allowable size for an icon is currently only 19x11.

The only real problem I encountered with WSTBar was its lack of integrated configurability options - to configure WSTBar, you must first edit the .ini file in an external editor, a process more time-consuming and frustrating than that of ICC. However, the author has assured me that the next release of WSTBar will address and resolve this concern.

Overall, WSTBar, like ICC, automates the routine and often boring task of connecting to the 'net and then manually launching several apps in succession. WSTBar does lack ICC's configurability options (which itself could be made more user-configurable); however, at half the price of ICC, WSTBar is definitely the better value.

RoboDUN

Desc: Windows 95 specific Dial-Up Networking Script Utility

Positives: Scripting ability for dial-up networking in Windows 95, and it's free!

Negatives: Only works in Windows 95

Location: <http://WWW.NetEx.NET:80/w95/windows95/internet/>

Filename: RDUNxx.zip

Status: Freeware

Author: Mark Gamber

Rating: 4 1/2 Stars

Windows 95 currently only allows manual dial-up logins to the Internet for SLIP/PPP users. Continual manual dial-ups will drive anyone insane, which is exactly why RoboDUN (Robotic Dial-Up Networking) is so helpful.

RoboDUN works much like Trumpet WINSOCK's scripting feature, but gives users scripting



for Windows 95 (and hence, allows access to 32-bit 'net apps). This critical functionality is presently missing in Trumpet WINSOCK and, of course, Windows 95 - RoboDUN is the only app I've found to date that allows automatic access to the 'net via scripting for Windows 95.

By automatically guiding your 'net connection, RoboDUN saves you both the time and effort involved in manual logins; at the same time, it eliminates countless mistakes that are often made during logins. For its unique benefits, RoboDUN is a *must-have* 'net app for Windows 95 users.

Cute FTP

Desc: A strong competitor to the best FTP client on the 'net (WS-FTP)

Positives: Nice array of features, including caching and the stop command; low price

Negatives: Lacks some critical features found in its close competitor, WS-FTP

Location:

<ftp://oak.oakland.edu/SimTel/win3/winsock/>

Filename: CTFTPxx.zip

Status: Shareware - \$30. Free 31-day evaluation

Author: Alex Kunadze

Rating: 4 Stars

Like John Junod's WS-FTP, Cute FTP is a stand-alone File Transfer Protocol client with a multitude of configurable options and features exceeding those of FTP clients found in web browsers and gopher clients. Cute FTP even capitalizes on many features missing in WS-

FTP. - One of the best features of Cute FTP is its robust *stop* command, similar to the stop button found on many web browsers. This command allows a user to stop any operation in progress while still maintaining the connection.

Cute FTP also integrates the file-listing process with file descriptions obtained from the index files found at many anonymous FTP sites (extremely helpful for deciphering the cryptic file names found at many FTP sites). Caching of recently visited directories is another distinctive feature.

While including all of these features and more, Cute FTP does lack some of the best features of WS-FTP, including WS-FTP's File Manager-style approach to listing both remote and local directories side-by-side, built-in extensive collection of anonymous FTP sites, comprehensive login listings, and the ability to send multiple files at once to a remote site. However, Cute FTP is extremely new and will likely see many improvements in the near future. ♦

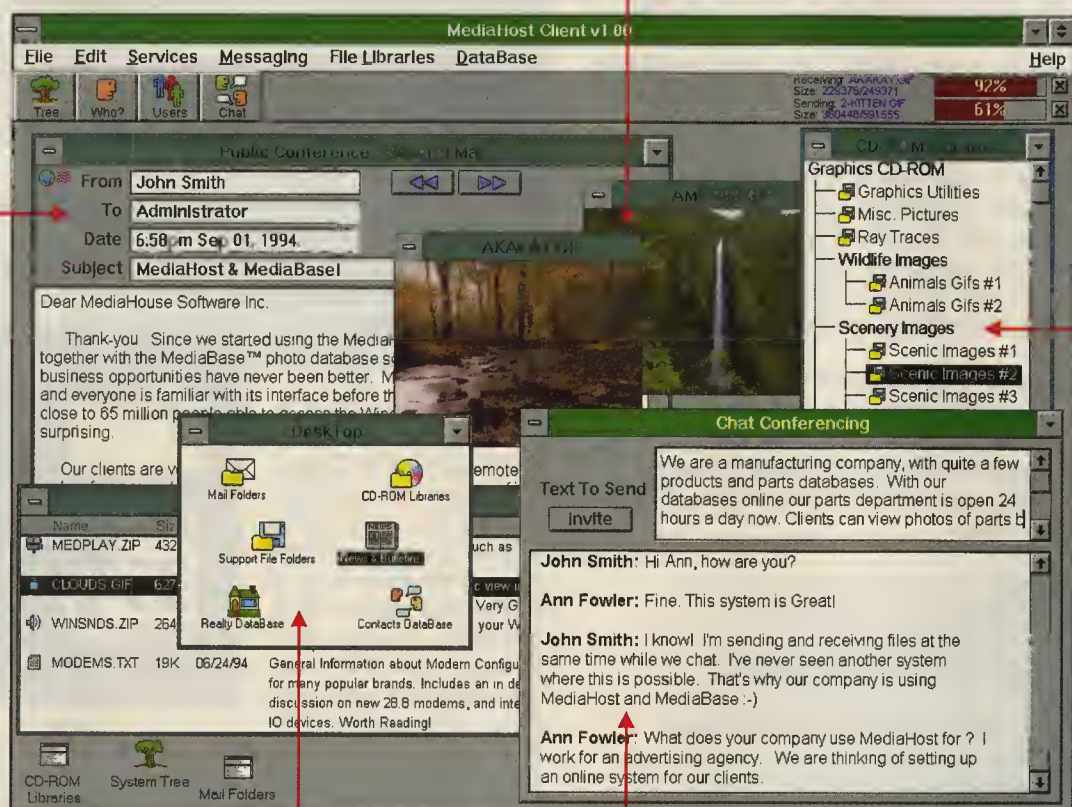


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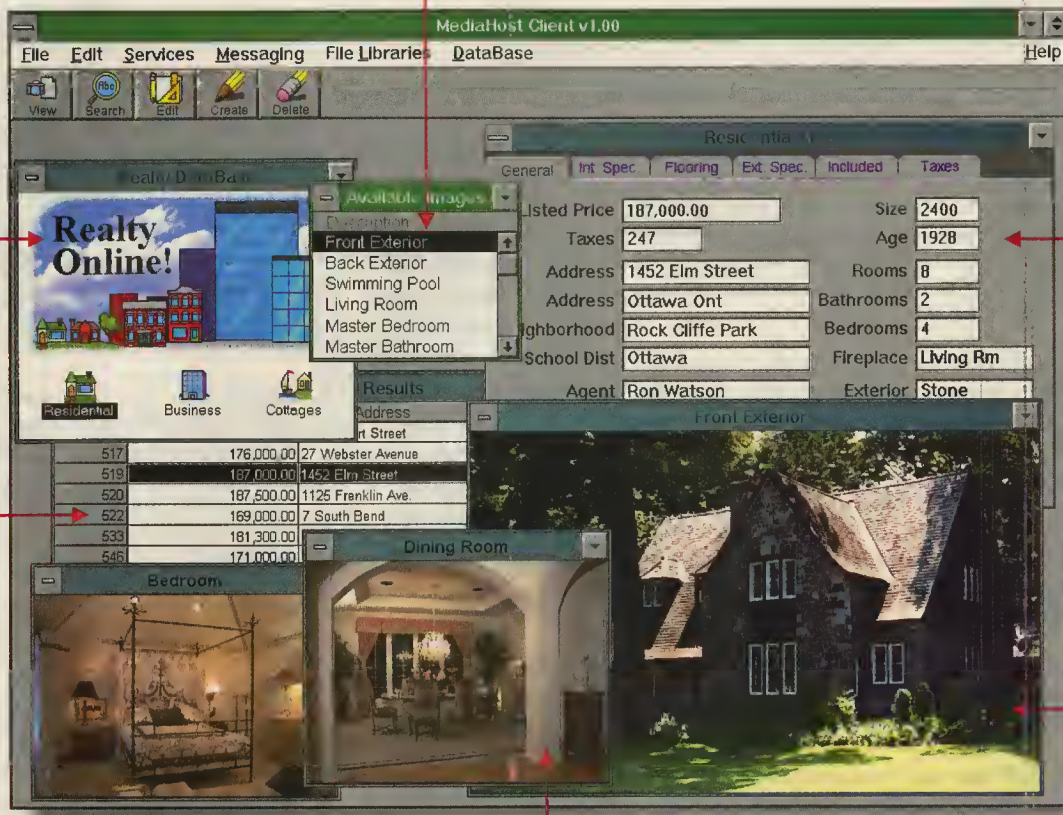
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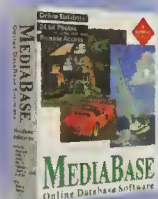
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DR. BOB

by Bob Rankin

INTERVIEW WITH BRIAN PINKERTON, DEVELOPER OF WEBCRAWLER

Brian Pinkerton is a man who thrives on chaos. But he's also the creator of a tool that's bringing some order to the tangled World-Wide Web.

WebCrawler - <http://webcrawler.com> - is Pinkerton's brainchild, a tool for indexing and searching the Web. You want frogs, flowers, or french fries? WebCrawler knows where to find them.

And when America Online went looking for some Internet expertise, they knew where to find Brian Pinkerton. AOL recently purchased WebCrawler, one of the most popular Internet search tools, and will continue to operate it as a free service to the Net community.

Pinkerton is a 31 year-old Ph.D. student at the University of Washington in Seattle. His professional interests include network information discovery, information retrieval, and applications of computer science to molecular biology. He has worked as a software engineer at NeXT Computer, and is currently leading the WebCrawler development team at WAIS Inc.

I talked to Brian at his San Francisco office recently about WebCrawler, the AOL acquisition and the future of the Internet.

Doc: When did you start the WebCrawler project and why?

Brian: I started work on the WebCrawler project in January of 1994 because I was curious about the Web. Some of my friends at school had lots of time to surf the net and they were always sending me e-mail telling me about cool stuff they found on the Web.

I could never find time to explore, so I wrote WebCrawler to help me find the things I was interested in. It let me do keyword searches and could take me where I wanted to go without surfing.

In April of '94 the WebCrawler first went public on the Internet when I put up a web interface at the University of Washington. The database contained entries from about 6000 different servers and after a week I was handling 100+ queries per day.

Doc: Things have really grown since then... How many people use WebCrawler every day? How big is the WebCrawler database?

Brian: Well it's easier to talk about the number of queries than about unique users. I can tell you that

we process about 300,000 queries a day, which is up from 15,000 last October.

Our content index is about 60MB in size and contains information on over 100,000 documents. But there's also a database of about a million documents that WebCrawler knows about but has yet to explore!

So far WebCrawler has indexed half a gigabyte of source material, but we're doing another run right now which will double the size of our database, and we hope to double it again in the near future.

"We've seen the government for years pouring massive amounts of dollars into very elaborate search tools... I think they're working on the wrong problem."

Doc: WebCrawler seems to find whatever I'm looking for, from Chinese restaurants to cheesecake recipes. Do you censor the content of the WebCrawler database in any way?

Brian: No, we don't censor anything. Once you start censoring, you get on a slippery slope that's really hard to get off of. Prodigy is an example... they were found liable for damages because they claimed to exercise editorial control.

Doc: Do you worry about someone saying "I used WebCrawler to find kiddie porn on the Internet?"

Brian: I guess I have a concern about that, but we use the library as a model for content. You can find almost anything - or pointers to it - at a public library, so we feel safe using that analogy.

Doc: Can you tell us about the technology that WebCrawler uses?

Brian: WebCrawler is written in C and Objective-C for NEXTSTEP. Right now it uses an indexing scheme and query engine that I wrote myself, but we're working on migrating to some commercial products - probably Oracle and WAIS technology.

The WebCrawler server runs on three Pentium CPUs running NEXTSTEP. Each machine has half a gig hard disk and 96MB of memory. We're keeping up with the load now, but we've got a couple more processors on order just in case.

Doc: How would you compare WebCrawler to Lycos and other searchers?

Brian: Lycos is sort of the same and sort of different. The basic differences are that Lycos has more content and they present the search results differently. But WebCrawler is fast! We achieved that speed by sacrificing some of the Lycos features, but we have people

Bob Rankin, known as "Doctor Bob" in the online world, is a computer programmer and consultant who enjoys exploring the Internet and sharing the fruit of his experience with others. His free guide "Accessing The Internet By E-Mail" has circulated widely on the Internet, and is available in 12 languages. Rankin has also authored "100 Cool Things To Do On The Internet" and "Doctor Bob's Internet Business Guide", which are available for \$5.00 each. For info, send e-mail to bobrankin@mhv.net with Subject: send info

working on adding Lycos-like features to WebCrawler.

We've seen the government for years pouring massive amounts of dollars into very elaborate search tools that support all kinds of complex query operations, but I think they're working on the wrong problem. Most WebCrawler users start with a simple one-word query and refine their search criteria based on the initial results. You have to keep it simple and fast.

Doc: *Do you think WebCrawler has or will change the Internet in a fundamental way?*

Brian: I think it has. Clearly, search tools like WebCrawler are incredibly necessary. People would not be able to navigate the Internet without them. The success of earlier tools like Archie and Veronica was an indication that WebCrawler would be successful, and the rate of usage shows the real value of the tool.

Doc: *Do you see a convergence of Internet search tools coming?*

Brian: I can definitely see that. We've already started to move aggressively in our efforts to add more FTP and Gopher information to the WebCrawler database.

The real challenge comes with trying to index USENET. There's a tremendous volume of data to deal with and really only the last 2 weeks or so is of value. But WebCrawler isn't updated that often now... we're working on it.

Doc: *Recently, AOL purchased the WebCrawler software. How has that changed your life?*

Brian: It really has changed my life. I'm working full time on WebCrawler now at WAIS Inc. (another recent AOL acquisition) and also trying to finish my graduate work at UW. It's even changed my thesis... I was previously working on computer algorithms for DNA sequencing, but now my thesis will be on WebCrawler!

Doc: *What does AOL get out of this deal? How about you?*

Brian: AOL wants to build its Net expertise, and the acquisition of WAIS Inc. and WebCrawler will help them a lot. We can help them to understand how the Net works, what people want from it, and how to proceed with their plans. They also look at it as giving something back to the Internet, by providing a free and very useful service.

I get a deal that's worth around a million dollars and a good job with WAIS Inc. It's something that still has not sunk in yet. There's also a significant investment by AOL in hardware and personnel to continue WebCrawler development and keep up with demand from the users.

I also get a lot of "How could you do this?" e-mail from people who hate AOL for one reason or another. All I can tell them is that it's not the death of WebCrawler. We still run it and we're not subject to AOL's terms of service.

Doc: *In your opinion, is there a future for fee-based search tools like InfoSeek on the Net?*

Brian: I think they can survive, but there's a trade-off. The more upfront info you require from new users on your signon panel, the fewer users you get. Electronic payment systems like Digicash could really open the doors for businesses like this, though. Users won't mind paying a penny to do a search if it's a no-brainer to make the payment.

But there's also an alternative to pay-per-use: advertising. If you can get your equivalent of "a penny a search" in advertising revenue then you could do quite well with a high-traffic site.

Doc: *Will the Internet ever get so big that it will be impossible to find what you're looking for?*

Brian: I do worry about that, and it's true to some degree even now. I think we'll see a shift towards distributed indexing and database technologies as the Internet continues to grow exponentially.

I think there is real value in being able to find the information you want in one place, though. I hope things will evolve to the point where we can have multiple front end tools sharing a common infrastructure, but it'll be a bottom-up evolution by necessity.

Doc: *How do you use the Internet on a personal level? Any favorite hangouts online?*

Brian: I spend a bit of time at Time Inc's Pathfinder - <http://www.pathfinder.com> - and of course I use WebCrawler a lot to surf around. Since my job is online, I really find it interesting when the Net intersects with real life. I get the train schedule

online every morning, I check the FedEx page - <http://www.fedex.com> - when I want to track a package, and I use online movie listings and restaurant guides.

Doc: *What's the most bizarre thing that's happened to you in cyberspace?*

Brian: I've been online for half my life, so nothing seems bizarre any more. I do get a kick out of it when I meet long lost friends through the Net. People see my name on the WebCrawler page and send me e-mail saying "Are you the Brian Pinkerton I knew in high school back in Wisconsin?" That's cool.

Doc: *Is there a future for the Net-connected BBS, or will the telephone companies and major online services effectively take over the Internet service provider market?*

Brian: There's a couple of answers to that. I think the small ISP's can continue to exist if the barriers to entry remain low. But there's a possibility that the technology required in the near future may price some people out of the market. Specialized providers with attentive hands-on service will survive by providing value to their customers.

The little guys also have to consider making the shift from Service Provider to Information Provider. Up until recently, information providers were all massive corporations like Reuters. If you weren't big you couldn't survive.

The Internet changes all that... With the barriers to worldwide publishing so low, smaller IP's can take advantage of the leverage of the Net to provide content that is valuable to a niche market.

Doc: *We haven't heard much about Al Gore and the Internet lately, have we?*

Brian: No we haven't. (grin) Isn't that great?

Doc: *Any parting shots on the future of cyberspace?*

Brian: I'm looking forward to keeping the chaos going. I thrive on it, it keeps me guessing, and I like that. ♦

Connecting with Brian Pinkerton:
e-mail: //bp@webcrawler.com

WebCrawler Info:
e-mail: //info@webcrawler.com



ADVENTURES IN LINUX by Andrew Selman

BEGINNINGS

My adventure in Linux started innocently enough while my wife and I were sitting in a restaurant in Southern California waiting for our burgers to arrive.

We started talking about computers and electronic bulletin boards. I had just read the February issue of Boardwatch and I was telling her about the poll Boardwatch had published regarding the size of various boards' user logs. The poll asked BBS owners the total size of their user logs, the number of active users, the number of paying users and the average charge to paying users.

I found the poll interesting because it was the first time I had actually seen the BBS industry quantified in such a way. I also found it interesting, because at that moment I was struggling with setting up my own BBS, Earthnet. The question I pondered was "Which operating system was best to use: DOS, Windows or OS/2?" A UNIX system had not even crossed my mind.

All I knew was that I wanted to provide SLIP/PPP dial up capabilities for my users along with all the Internet extras while providing a BBS service. Having run my own BBS in Indiana several years ago, I figured that setting up the SLIP/PPP service would be a piece of cake. Boy, was I ever wrong!

My first step was to figure out with which operating system to go. So, I called various vendors in Boardwatch who were selling BBS software in order to gather as much literature on products as I could. I pretty much knew which vendors I liked, and proceeded from there. I tried a few of the Windows-based systems and even played with OS/2 for a little while. But poor performance and limited multi-tasking, coupled with an extended use of the three-fingered salute, made me begin to wish I hadn't even started this journey.

Then, while lurking on a newsgroup, it occurred to me, that I was going to have a really tough time providing SLIP/PPP accounts without some form of UNIX box. That thought became really clear when I sat down to talk to Pacific Bell about ISDN high speed phone line support. With this new exciting thought in mind (and I am being extraordinarily sarcastic here), I began reading the `alt.os.*` and `comp.*` news groups for UNIX.

Much to my amazement, I learned about Linux from the Compuserve UNIX Forum.

A LINUX JUNKIE IS BORN

Linux was first developed as a freely distributable version of UNIX. It was developed primarily by Linus Torvalds at the University of Helsinki in Finland. Linux was subsequently revised and improved with the help and sweat of various UNIX gurus, programmers and wizards across the Internet. In short, anybody with enough know-how could play with and hopefully improve, develop or change the system. The Linux kernel required no code from AT&T and much of the software is developed by the GNU project in Cambridge, Massachusetts: e-mail://gnu@prep.ai.mit.edu or <http://www.cs.pdx.edu/~trent/gnu>

What makes Linux so exciting is: it is free! Linux is distributed under what is called the GNU General Public License, or GPL. In short, software covered by the GPL does not cost anything. It is not shareware, nor is it in the public domain. Linux can also be sold for a profit, but a more restrictive license cannot be placed on it. Basically, it's yours to use, distribute and make a profit on. Just don't try to call it your own. It's a little strange, but it works. If you are very interested, read the license sometime.

Perfect! Call me cheap, but at the time, there was no way I was going to shell out (all pun intended) five grand for SCO or another expensive flavor of UNIX just to give it a whirl. My memories of fighting with OS/2 and Windows still lingered. But, downloading all those Linux files from the Compuserve UNIX Forum was going to run my CIS account into orbit. I continued my search for a better way. It soon presented itself on a CD in the form of the Slackware version of Linux, version 2.2.

ACQUIRING YOUR ADDICTION

I need to warn you at the outset, Linux is an addiction and several companies have made it easy to get your fix. Moreover, I love compact discs and I especially love my CD-ROM that contains Linux. There are several companies that have taken full advantage of the GPL, and have packaged Linux on CD-ROM with all the whistles and bells.

We purchased the Slackware version of Linux, version 2.2 from Linux System Labs — (800)954-2829 or (810)716-1700 voice — for \$59.95 plus shipping and tax. The package came in about ten days via UPS with a huge manual full of How To's and Matt Welsh's Linux Installation and Getting Started. You can also get a 4 CD-ROM set that contains all the different Linux versions, the complete `sunsite`

Andrew is the founder and owner of Earthnet BBS in Encino, California.

Andrew's e-mail address is aselman@earthnetbbs.com

Andrew is also an environmental insurance attorney in Los Angeles, California.

Prior to practicing law, Andrew ran a bulletin board in Bloomington, Indiana for Connecting Point Computers. He is 28 years old, married to his wife Wendy, and is expecting his first child in December 1995.

.unc.edu archives and the complete tsx11.mit.edu archives for \$69.95.

Yggdrasil Computing — (800)261-6630 or (408)261-6630 voice — sells its fall 1994 version for \$34.95 and will be coming out with a six-disc set that includes the various Linux archives at the end of June 1995. They are taking advanced orders for the same \$34.95. Their package comes with an installation manual of their own design. Infomagic — (800)800-6613 or (520)526-9565 voice — sells its most current March 1995 version of Linux for \$25.00. This set includes the Linux archives from sunsite.unc.edu. Finally, there is a wide variety of Slackware professional 2.1 vendors who sell one- to three-disc CD-ROM packages between \$30 and \$70.

Linux, being free and all, is available on the Internet. The operating system is found in the UNIX Forum on Compuserve and in bits and pieces on America Online. It is also available via <ftp://sunsite.unc.edu> in the /pub/Linux directory; <ftp://tsx11.mit.edu/pub/linux/distributions>; and <ftp://ftp.cdrom.com/pub/Linux/slackware>. Be sure to check the [mirrors.txt](#) document for other mirror sites. Linux may also be found on the Wide World Web at <http://sunsite.unc.edu/mdw/linux.html>.

You can read about Linux to your heart's content on various newsgroups. The [comp.os.linux](#) newsgroup is one of the loudest and most active that you will find. The newsgroup has been split into several sub-categories for clarity. Those groups are [comp.os.linux.announce](#), a moderated group for announcements and important postings about Linux; [comp.os.linux.help](#), the most popular newsgroup dedicated to questions and answers about setting up and running a Linux system; [comp.os.linux.admin](#), a newsgroup dedicated to questions and answers about running a Linux system in a multi-user environment; [comp.os.linux.development](#), a newsgroup dedicated to discussions about developing Linux; and [comp.os.linux.misc](#), a newsgroup dedicated to just about everything else concerning Linux.

LOADING LINUX FOR THE FIRST TIME

Linux is not plug-and-play software.

•Hardware Issues

While perusing the Linux newsgroups,

one notices a constant debate as to what hardware will work and what won't. For Earthnet, we run a 486-DX2-66 with 12 megabytes of memory. Our main drive running Linux is 345 megabytes and we have a SoundBlaster CD-ROM player turning our Slackware disk. We also have an inexpensive Packard Bell VGA monitor and a Logitech mouse attached to the system. Our mail server and file server are similar in configuration. Moreover, we use 3Com Ethernet cards and an inexpensive hub to connect them all together. Suffice it to say, it works.

Many potential Linux users would like me to print the complete FAQ (Frequently Asked Questions document) about hardware compatibility. I can't and more importantly, I won't; it's too darn long. Matt Welsh's *Installing Linux and Getting Started* has a fairly decent discussion of compatibility and hardware requirements. You pretty much can't go wrong with a 486 and 12 megabytes of RAM. However, with anything less you will use a hard drive swap file often and performance will noticeably slow down. Search out and read the FAQ on compatibility in the newsgroups mentioned above.

•Prepping Yourself

I warn you now, you will lose all the data on your Linux partition at least once. No maybes. No, "what if I'm careful." You will lose it. Accept it. Live with it. Then get your company, boss, spouse, best friend, etc., to lend you the money — or better yet, the CD-ROM itself — that contains the software. You'll be happy you did. The first time I lost my data I shrugged, re-formatted the partition once, and then once again, and reinstalled from the CD-ROM. The CD-ROM is a small laser-etched blessing and the best sixty dollars my boss ever let me spend.

The second comment I must make is that if you are new to UNIX in general, beware. DOS, Windows and OS/2 allow most of us to fly by the seat of our pants. Linux, or for that matter, any UNIX flavor, does not. I entitled this column "Adventures in Linux" for a reason. Just learning to set up, run and administrate Linux is a college-level course and is not for the squeamish. Learning the whistles, bells and networking techniques will get you to senior year.

To that end, read the manuals before you do anything. I repeat myself for clarity: *read the manuals before you do*

anything. Remember how I mentioned that I lost my Linux drive several times? That's because I didn't follow my own advice.

Now, there is a caveat to reading the manuals first. That is actually finding the manuals and other spurious documentation and getting them printed. I have introduced you to Matt Welsh's *Linux Installation and Getting Started*. It is a great place to start. My version of Slackware came with a book entitled *Linux: Getting Started*. In it, besides Welsh's article, are a group of documents popularly called How-Tos. A How-To does exactly what you may think it does, it teaches how to do a particular task. For instance, how to install a network, how to install a serial device, how to install a CD-ROM device, and many other topics. Many more How-Tos are included on my CD-ROM but weren't printed.

Another important group of documents can be found on sunsite.unc.edu and are maintained by the Linux Documentation Project, or LDP. To us here at Earthnet, the most important book in this particular archive, is Olaf Kirch's *The Linux Network Administrators' Guide*, or for short, the NAG. This 348 page book includes detailed instructions on setting up a multi-machine network, electronic mail setups, newsgroups, SLIP/PPP, and UUCP. The guide is invaluable and I highly recommend it to anyone getting ready to run their own Linux-based network.

The LDP archive also includes the latest version of Matt Welsh's *Linux Installation and Getting Started*; Michael K. Johnson's *The Linux Kernel Hackers' Guide*; and Lars Wirzenius' *Linux System Administrator's Guide*. They are all worthwhile reading and I recommend these also to a serious Linux Administrator.

Finally, read the newsgroups while you begin your installation. As you run into problems — and you will — consult the documentation first. Then read the newsgroups. I caution restraint on posting to the newsgroups before reading the newsgroup offerings. There is an excellent chance your questions have been asked before. If you do post, please be sure and post usefully. Flames do not belong on the technical newsgroups. These groups are here to discuss issues important to the posters. Please post so that everyone can get some use from your problem.

•Prepping Your Machine

Now that you have prepped your mind, it is time to prep your machine. As noted previously, we work with the Slackware version of Linux on CD-ROM. Therefore, we had to prepare a set of boot and root floppies from the disks before we could start. The first step is to decide which boot and root images to use.

In our case, since we were using a VGA monitor and a SoundBlaster Pro/Panasonic CD-ROM player, we chose the boot image **SBPCD.GZ** from the cd-rom directory **BOOTDSKS.144** and copied it to a subdirectory called **\UNIX** on our MS-DOS based hard drive. Since we were using a VGA color monitor we chose the bootdisk image **COLOR144.GZ** from the cd-rom directory **BOOTDSKS.144** and copied it to the same directory.

We also copied the utilities **GZIP.EXE** and **RAWRITE.EXE** to the **\UNIX** directory. We then decompressed each of the two files using:

```
C:\UNIX> GZIP -D COLOR144.GZ
```

and

```
C:\UNIX> GZIP -D SBPCD.GZ
```

The resulting decompressing generated two larger files called **COLOR144** and **SBPCD**.

We then found ourselves two 1.44 megabyte floppy disks and labeled one "root" and the other "boot." We inserted the disk marked "root" in our A: drive and using the **RAWRITE** utility we issued the following command:

```
C:\UNIX> RAWRITE
```

We then answered the prompts for the name of the file to write (in our case **COLOR144**) and the floppy to write it to (A:). We conducted the same operation for the **SBPCD** file using the "boot" disk in A: and answering **SBPCD** to **RAWRITE**'s queries.

Next time we will plunge into the Slackware installation program and boot our first Linux kernel. ♦

LINUX, XWINDOWS, AND PERL ON CD-ROM

Walnut Creek CDROM started life in the garage with a CD-ROM of collection of shareware and public domain software on the SIMTEL ftp site. Apparently, it was a good idea. The company today publishes a catalog

of CDROM titles sporting nearly 60 titles. And they're good. Not fluffy GIF collections, but some solid stuff we think you'll find interesting. We did. Some examples:

LINUX - a two-disk set containing the complete Slackware Kernel 1.2 version - ostensibly "the one that works." This is a free distribution of UNIX that runs on Intel PC architecture computers. It was originally written by Linux Torvalds but now sports contributions by hundreds of programmers who support this free operating system. You can actually download this operating system from a number of places, but it's many megabytes and a real treasure hunt to collect all of the utilities and programs that have been written to support this OS. The CD contains the contents of the **11.mit.edu** and **sun-site.unc.edu** archives - the largest repositories of Linux tools and add-ons. Walnut Creek has it all on a two-disk CDROM set at **\$39.95**.

FREEBSD - FreeBSD is another variant of UNIX for the PC. It's based on the long-term efforts of the Computer Science Research Group at U.C. Berkeley. CSRG has been releasing operating systems technology in the form of their BSD releases over the past ten years. Commercial operating systems from Digital Equipment Corporation and SUN Microsystems had their genesis in BSD and users of such environments will find FreeBSD familiar. FreeBSD tries to model itself more after "commercial" operating systems where a central group of people releases updates in a more structured manner than Linux. FreeBSD may be more attractive to more conservative or "corporate" users. Because many parts of BSD have been refined over a longer time period, such as the networking code, it may be it is more stable for applications such as firewalls, routers, ftp servers and so forth. Walnut Creek uses BSD internally. But it is probably a bit more complex to install than Linux. It's all on the CD at **\$39.95**.

X11R6 - This disk contains the OFFICIAL X Consortium release of the X Window System X11R6. The X Window System is a graphical user interface (GUI) for the UNIX operating system - providing a Windows-like interface to the usually cryptic UNIX operating system. The disk was compiled for SunOS 4.1.3 and Solaris 2.3. But it will work with A/UX 3.0.1, AIX 3.2.5, BSD/386, HP-UX 9.1, IRIX 5.2, Mach 2.5, Linux, and FreeBSD along with several others.

Includes source code of course at **\$39.95**.

PERL - Perl is an interpreted language for UNIX optimized for scanning text files, extracting information, and printing reports based on the extracted information. It's also an excellent language for many system management tasks. With this CDROM, you get mirrors of over a dozen Perl archives, including those at the University of Florida and Texas Metronet. The material is as up-to-date as possible, uncompressed and reorganized to make finding files easy. It comes with sources to the latest versions of both Perl4 (4.036) and Perl5 (5.000). It also sports source or binary versions for Amiga, Atari, A/UX, LynxOS, Mac, MPE, DOS, MVS, Netware, Windows NT, OS/2, VMS, and XENIX. Perl compiles on over 40 platforms. It includes hundreds of programs including system administration utilities, mail handling, USENET News, Internet browsing, file handling, text processing, etc. In all - some 7000 files at **\$39.95**.

Between these three, you wind up with more UNIX than most people can deal with in a lifetime. But we also found a number of other interesting titles in the catalog: **MUSIC Workshop** - 450 MB of music related programs and professional demos; **TEACHER 2000** - 2294 educational programs; **HOBBS OS/2 ARCHIVED** - 650 MB of OS/2 programs; **SCIENTIFIC AND TECHNICAL LIBRARY** - thousands of applications in artificial intelligence, astronomy, engineering, etc.; **KIRK'S COMM DISC** - 5,307 comm related files for using your modem - 619 MB in all; **THE OFFICIAL POV-RAY CDROM** - compilation of images, scene source, program source, utilities and tips on POV-Ray and 3D graphics from around the world; **SHUTTLE ENCYCLOPEDIA** - 3015 GIF images and 3779 text files cataloging every shuttle mission ever flown; **EAST ASIAN TEXT PROCESSING** - 313 programs to enable your PC to view, edit and output Japanese, Chinese, Korean, and Vietnamese text - 35,250 files in 619 MB. And you guessed it, almost all of them are **\$39.95**.

All in all, it was the most fascinating CDROM catalog we've found. Walnut Creek CDROM, 1547 Palos Verdes Mall, Suite 260, Walnut Creek, CA 94596; (800)786-9907 voice; (510)674-0783 International; (510)674-0821 fax; e-mail://info@cdrom.com; http://www.cdrom.com. ♦

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Because Worldgroup, our premier client/server groupware product, is more than just an off-the-shelf solution for running your own dial-up online service and Internet site. It is an open architecture platform that lets you tailor your interactive environment by choosing from a colorful variety of plug-and-play options... or authoring your own with Visual Basic.

Ultimate World-Wide Web Destination

The Internet Connectivity Option (ICO) for Worldgroup gives you a basic Web server all on the same PC. You can then put up a really hot home page with a hypertext link to

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As soon as a surfer has your client, you are no longer bound by the restrictions of HTML. Kick off any custom Windows program on his machine. Have real-time interaction between users (whether a business teleconference or a game of chess). Private group discussion areas. Flexible security and accounting control. The ability to build real "community" among users.

Worldgroup's multithreaded client/server protocol rides on top of the Internet's TCP/IP connectivity, transparently using telnet or rlogin. ICO also gives you regular telnet, secure ftp, anonymous ftp, SMTP mail, rlogin, finger, and more (pass-through SLIP/PPP coming soon).

Powerful Visual Basic and C Extensibility

With Worldgroup's Client/Server Developer's Kit, you can use Visual

Basic Pro 3.0 and Borland C++ to build your own custom online programs. In addition to complete documentation and reference manuals, we also include the client and server source code to our own applications.

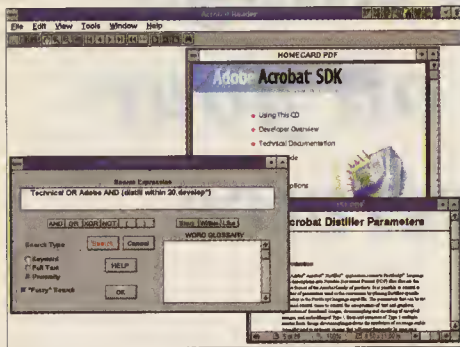
By taking advantage of the wide range of VBX tools for Visual Basic, you can quickly add JPEG photos, RTF messaging, compression/encryption algorithms, 3D-rendering, clickable image maps, and more to your Worldgroup programs.

Or, explore the following pages and select your favorite options from several of our leading Independent Software Vendors. Either way, you'll be taking advantage of the industry's most open client/server platform — and running the coolest Web server/online service on the planet.

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ALEX Document Management



ALEX is your complete online text database solution. With ALEX, you can make available huge databases containing text, photos, or other objects. ALEX integrates Adobe Acrobat technology, enabling you to provide complex documents online in their original format. Create manuals, forms, spec sheets, real-estate sheets, and any other graphical document using your favorite authoring program. ALEX can display it exactly the way it was created! Users can search using full-text, proximity, boolean, and keyword searches.

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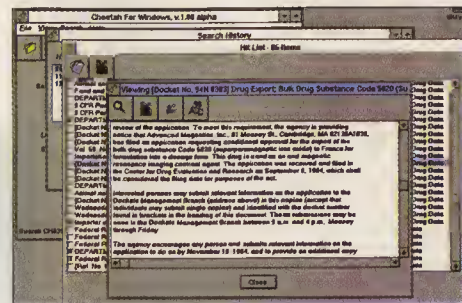
APDI's popular full-text searching software now runs on the Worldgroup platform. Users can access your full-text databases with the power and speed of Cheetah and the ease of use that comes with Windows and the Worldgroup Manager. Cheetah supports online image viewing; simultaneous, boolean, phrase and proximity searching; and multiple database searching (up to 64 at the same time). Users can save search results locally and print them out. Search histories are also generated for each user.

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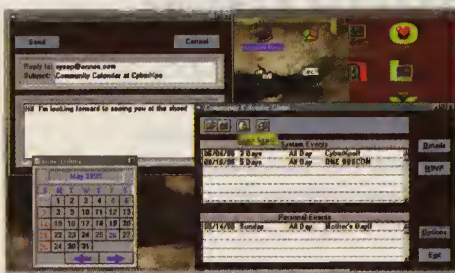
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Cheetah

Community Calendar



Community Calendar is a dynamic P.I.M. application that helps to organize you AND your callers. Need to plan an event and want to make sure you don't forget to post it? Post it NOW and it will appear to your callers on the date you entered it for. Boasts an attractive Worldgroup client/ANSI/ASCII interface and some very popular features like logon news, MHS network support, unlimited calendars for special interest groups, personal calendars, boolean keyword searching and RSVPs.

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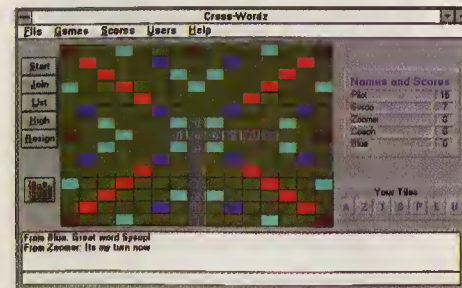
The ultimate interactive word game. Players compete in a 15x15 grid to place words they create from a combination of tiles. You can have an unlimited number of games being played simultaneously and up to five players can play in each game. User scores are kept in a database to maintain the top ten list. You can add and remove words from the dictionary, allowing you to control the difficulty level.

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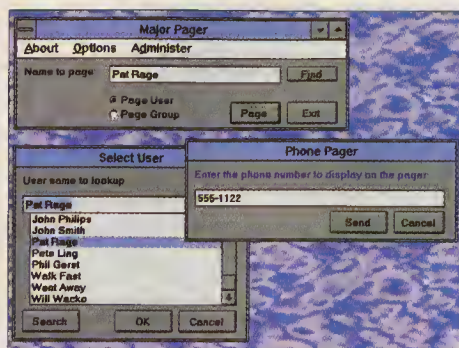
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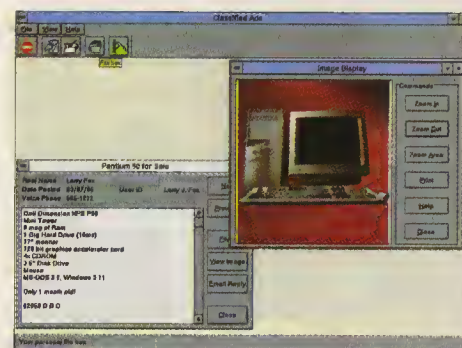
Marketplace is a user-friendly, menu-driven classified advertising database. Advertisers can include a picture (GIF, JPG, TIFF, PCX, etc.) with each advertisement. Callers can be notified when logging on that new ads were posted in specified categories. Marketplace allows you to charge by the word or by the ad. Collect payments by credit card or by deducting credits and/or days from the user's account. Credit card charges can be instantly processed online when used with our POS Dial Module.



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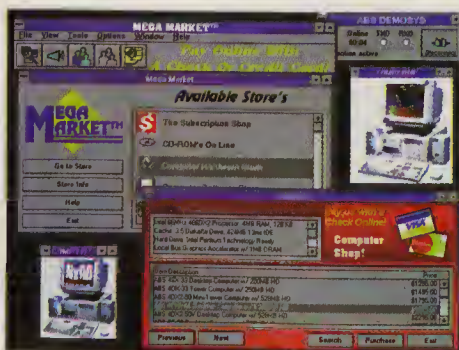
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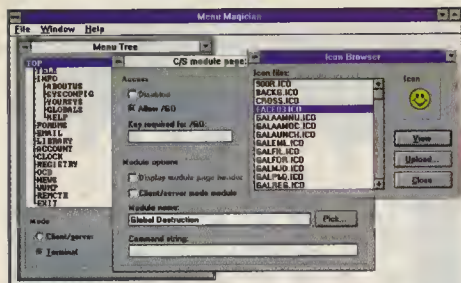
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Change your existing menu pages or create new ones and link them directly into your current menus while your system is still on the air! An invaluable tool, especially if you manage your system remotely. Edit pages by clicking on a page in your menu tree, select module names from a pick list of all the modules currently running, and decide on an appropriate icon with the handy Icon Browser. You'll wonder how you ever lived without it.

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Message Central allows your users to retrieve e-mail and forum messages automatically from your Worldgroup system without manually running e-mail and forums! Users configure the program to operate on a timed interval or on a preset schedule with up to 10 timed events per day, seven days a week. There is a client-based audit trail to track the program's activity and message counts. When new mail has been retrieved, users are notified by an icon and an audible message.



Technologies

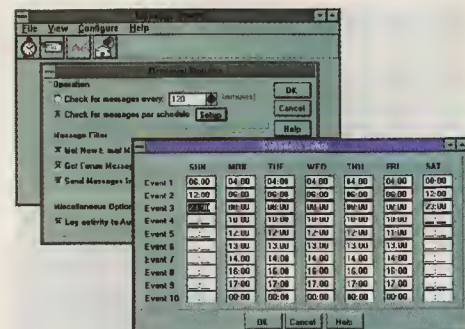
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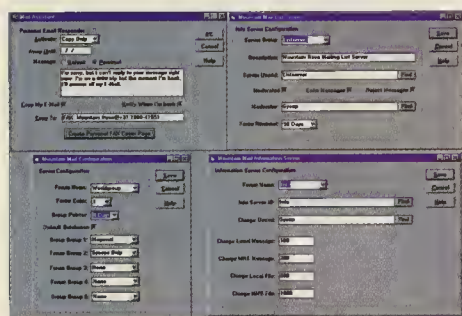
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Write news articles, system announcements, and other messages for your users to receive the next time they log on. Attach each message to a specific key or class, allowing you to control who sees which messages. Sysops or appointed editors can create messages in ASCII/ANSI or client/server mode that contain colors or bold/italic text, expire after a certain number of days, have attached files, and much more.

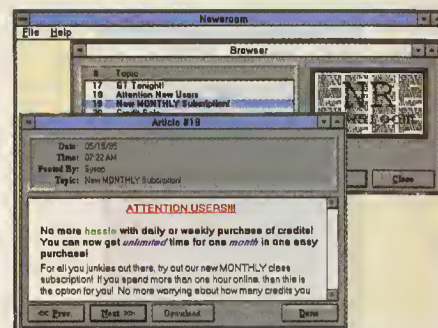


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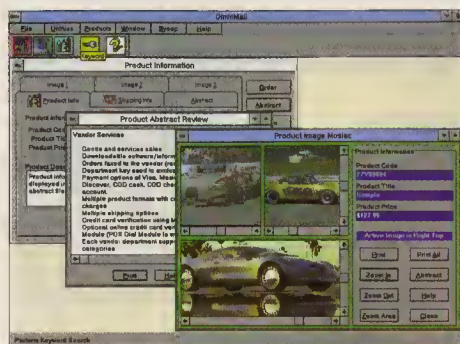
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Professional Backgammon

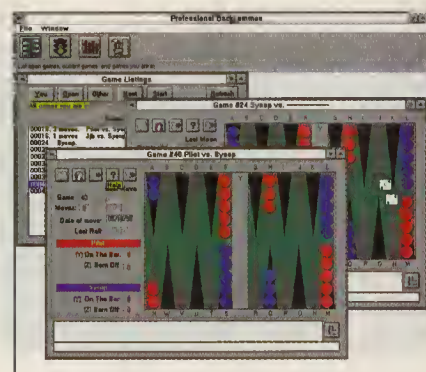
One of the most popular interactive games for Worldgroup. Everyone knows how to play Backgammon and we've made it even easier with all the click-and-drag features. This Backgammon game even uses the Double Dice for challenges. Players can participate in up to 10 games simultaneously with an unlimited number of spectators watching. You can configure the maximum number of days a game can be played and the number of days before deleting an old game.



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Chess players have enjoyed this game for years. This game offers every feature of Chess including castling, empassant and more. This chess game uses the National Chess Federation rating in points starting everyone at 1000. Players can choose from a 2-D or 3-D chess board and can chat with each other during game play. You can configure the maximum number of days a game can be played and the number of days before deleting an old game.



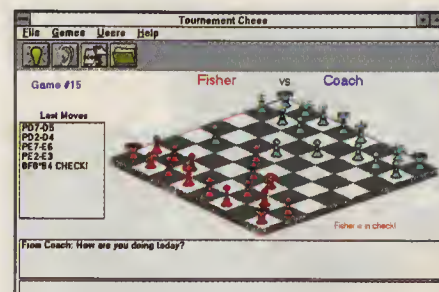
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Play head on against the house computer. Select your type of bet and play the real 21 Blackjack. Features double down, split and dealer stays on 17 and above. You can configure the minimum and maximum bets and whether your users play with real credits or pseudo-credits. Each card was individually scanned, for a beautifully rendered and realistic representation of a traditional playing card deck.

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VisaMan is the premier credit card billing module that allows your users to gain instant access to your BBS with the most convenience. The menu of services is tailored to each class of user on the BBS, giving the Sysop virtually unlimited configurability. VisaMan can optionally post credits to the user, switch his class, and give him expireable keys. Credit card orders can be instantly processed online when used with our POS Dial Module.

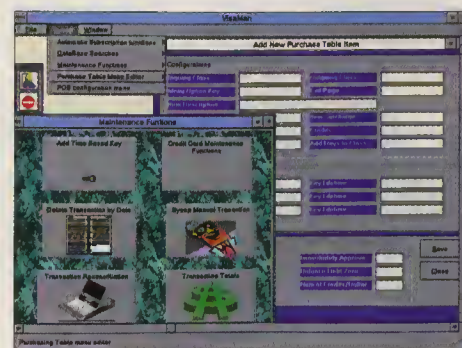


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VisaMan



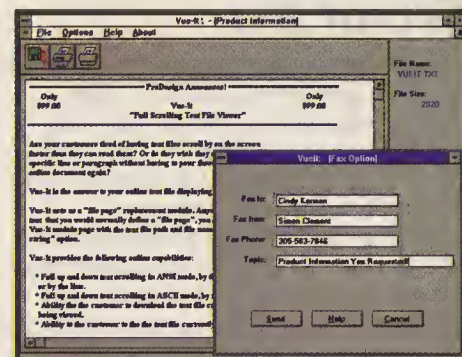
Vue-It brings full-screen scrolling text displays to your Worldgroup platform in client mode and ASCII/ANSI/RIP terminal mode. Vue-It allows optional file downloads and fax requests, which are controlled by key access. The client mode supports a print option. Vue-it also provides optional activity logging to the audit trail for download, fax and display requests. Look for more Worldgroup client applications from ProDesign, including upgrades to our Major Agenda, M.I.D.A.S and Fax Broadcast products.



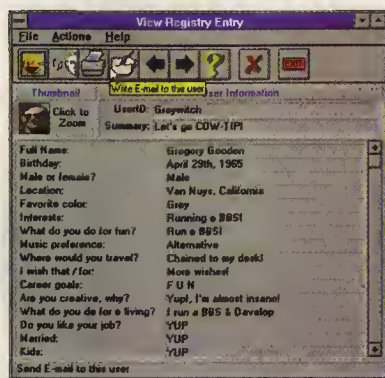
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Worldgroup Bulletins Pro

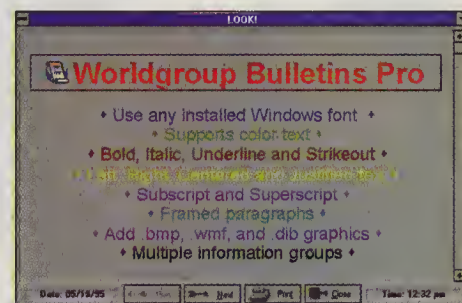
Worldgroup Bulletins Pro is a unique application that will add pizzazz to those boring ASCII/ANSI bulletins. A built-in mini word processor allows the Sysop to create bulletins very easily for both client/server and ASCII/ANSI users. The use of any font, size, color, underline, boldface, and/or italics is supported. Import BMP, WMF, or DIB graphics into your bulletins. Also, you can have multiple groups for different information. Limit bulletins by class, key, sex or age range.

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xBasic



xBasic is a powerful database module for Worldgroup. Using the xBASE compatible programming language you can design and implement relational database applications quickly and easily. xBasic includes an advanced set of functions used for taking advantage of built-in Worldgroup features such as: the Full Screen Editor, the line editor, file upload and file tag spec/download handler, e-mail, C function calls and user account database calls. xBasic supports an unlimited number of applications. And it also has image and WAV file support.

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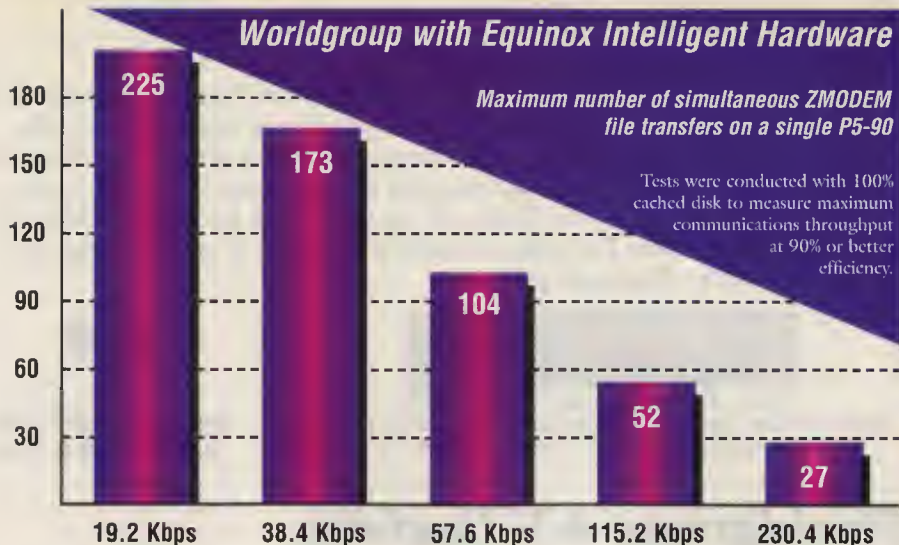
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THE COMPLEAT INTERNAUT'S TOOLKIT

USING TRUMPET WINSOCK FOR LAN & SLIP/PPP CONNECTIONS

I've always hated Microsoft Windows when it comes to telecomputing. First, Windows 3.1's comm driver bites the Big Enchilada. It was written for unbuffered UARTs, so its top reliable port speed is 19,200 bps. Push it much faster and the thing gets flaky as century-old paint. Second, the best Windows terminal programs still don't display ANSI/IBM graphics very well, and it's nigh impossible to configure a comfortable screen font. I still drop to DOS and run Telix v3.21 unless I'm calling something that absolutely requires a Windows interface.

That said, I'll stipulate that a cornucopia of essential software tools run as well as they can under Windows. The Compleat Internaut cannot do without Windows. The overwhelming majority of the Good Stuff on the Internet lies on the Web, and 99.44 percent of cool tools are now written for Windows platforms. "You just gotta get this thing," as Prodigy used to put it.

A Windows Sockets (WinSock) TCP/IP stack is another must-have if you want to cruise the Net in style. A WinSock stack is a software "shim" that provides a standard networking layer for Windows networking applications to use. Programs written to the Windows Sockets specification can utilize TCP/IP services provided by a Windows Sockets stack; programmers needn't write their own TCP/IP routines, an enormous time-saver. If you want to write WinSock-compliant software, a trip to <http://www.stardust.com/> will provide the excruciating details of the WinSock specification. I'm going to stick to installing and using a WinSock stack here. (See sidebar; the current WinSock 1.1 specification will soon yield to version 2.0.)

WinSock stacks come in all sizes and price ranges. Windows 95 and NT include Microsoft's flavor. Chameleon's Netmanage suite of TCP/IP tools features a WinSock called Newt. CompuServe's Netlauncher Web browser has its own WinSock. But you don't have to drop several hundred dollars on a WinSock stack.

TRUMPET WINSOCK V2.1C

The \$25.00 Trumpet Winsock shareware package is by far the most widely used WinSock stack. Written by Peter R. Tattam and marketed via Australia-based Trumpet Software International Pty. Ltd. - <http://www.trumpet.com.au> or <ftp://ftp.trumpet.com.au> - Trumpet Winsock works as well as any shrink-wrapped product and better than many. Its use is mandated throughout Boardwatch's office, and I've used it at home without complaint since the first day I hit the Web.

Version 2.1c was released in June of this year and is distributed under the filename **TWSK21C.ZIP**. It cor-

rects several minor bugs in version 2.0 and updates the vintage 1992 PING utility. For the first time, version 2.1 supports command-line switches that permit multiple startup configurations, i. e., one for a SLIP connection and another for a LAN connection. Other new features include a sorely-needed and professionally rendered help file, a "hop" utility that traces the routes that a packet takes on the way to its destination address and a "dig" utility that provides information about a domain name or address. With this release, Tattam has probably nailed down the WinSock market as tightly as Netscape has the Web browser market.

GENERAL INSTALLATION

Trumpet Winsock takes about five minutes to install. Create a directory for the files, e. g., **C:\TWSK21C** and unzip them from the archive to the target directory. Some of the files will go unused depending on whether you have a LAN or SLIP/PPP connection, but you may as well install all of them. The two critical files for either type of connection are:

WINSOCK.DLL - the Trumpet Windows Sockets Dynamic Link Library, which provides the essential TCP/IP services and interface for all WinSock-compliant application programs.

TCPMAN.EXE - the program that controls how WINSOCK.DLL interfaces with the Internet. Also the user's interface to Trumpet Winsock that allows you to set up the program as needed.

TCPMAN saves the user's settings in a text file whose default name is **TRUMPWSK.INI**; this initialization file is stored in the Trumpet Winsock directory. Version 2.1c permits multiple initialization files, e. g., **PPP.INI**, **SLIP.INI**, **LAN.INI**, etc. See the section "Installing Multiple Configurations" below.)

Next, edit your **AUTOEXEC.BAT** file; add the drive and directory name in which Trumpet Winsock resides to your PATH statement. Exit MS Windows if it is running, then reboot your computer and restart Windows.

Create a Windows Program Group and add the Program Items **TCPMAN.EXE**, **TRUMPWSK.HLP**, **TRUMPING.EXE**, **TRUMPHOP.EXE**, **TRUMPDIG.EXE** and **TCPMETER.EXE** to the group. Minimalists can get by with just TCPMAN.

Start TCPMAN and open the **File|Setup** menu item. (See Figure 1.) Enter your **Internet Protocol (IP) address** - mine is 204.144.169.104 as shown in Figure 1. Generally, you will be assigned a fixed IP address by your LAN administrator or Internet Services Provider (ISP).

Figure 1

Some ISPs allocate IP addresses dynamically - your IP address changes from one session to another, and your IP address for the current session is displayed when you log on. In this case, enter 0.0.0.0 in Trumpet Winsock's IP address field during initial setup. Each time you log on to your ISP, the current IP address must be fed to Trumpet Winsock. PPP (Point to Point Protocol) automatically handles this chore. SLIP (Serial Line Internet Protocol) does not; the IP address must be manually entered in Setup, or a dialer script can be written to capture the IP address from the screen and pass it to the program. (For an example of how to use dynamically allocated IP addresses, see the article on World Data Network's SLIP-providing PC Board in the "Direct Dial" section of this issue.)

The **Default Gateway** is the IP address of your Internet gateway or router machine. It tells Trumpet Winsock where to find the on-ramp to the Information Highway.

The **Netmask** field determines whether or not a destination address is on the same network you are on. Most users have a Class C IP address, and can use 255.255.255.0 as their netmask. Be sure to clear any checkmarks in the Internal SLIP and Internal PPP boxes before attempting to enter a netmask value; when either box is checked, the netmask field appears grey and cannot be edited.

The **Default Name Server** field contains the IP address of the machine that provides your Domain Name Service (DNS), get it from your LAN administrator or ISP. Boardwatch has its own Name Server, so the Name Server's address in Figure 1 is quite similar to mine.

The **Domain Suffix** field holds the name of the domain in which your machine resides. It is used in looking up names via the Name Server. Multiple suffixes can be entered here, separated by spaces, in case your machine is part of several different domains. The "com" in boardwatch.com is our suffix because we are a commercial site. If Jack Rickard is ever elected President, we might register boardwatch.gov as a second domain name; then I would need to add the gov suffix to this field.

Leave the **Time Server** field blank. It is presently unsupported. Future versions of Trumpet Winsock will provide access to a list of time server machines on the Internet, so you can automatically set your clock to cesium time.

The **Packet Vector** field is discussed below in the section "LAN Installation;" SLIP/PPP users needn't concern themselves with it. Leave the MTU, TCP RWIN, TCP MSS, Demand Load Timeout and TCP RTO MAX fields at their default values for the time being; they are discussed in the section "Fine-Tuning" below.

Trumpet Winsock can be used with either a dialup SLIP/PPP or a hardwired LAN connection. Let's discuss the dialup route first.

SLIP/PPP SETUP

A standard asynchronous serial connection does not support the Internet Protocol (IP); therefore, you can't get directly connected to the Internet via an unassisted modem or hardwired RS232C serial link. That means you must go through an Internet host that is directly connected to the Net for everything: ftp, telnet and all other services. You are stuck with whatever services and tools your host chooses to offer, and many procedures require time-consuming extra steps. To download a file from an ftp site, for example, you will have to use your host's ftp utility to transfer the file to a directory on the host computer, then download it from the host to your local computer. For most people, the worst part is that you can't use a graphical Web browser without IP.

The **Serial Link Internet Protocol (SLIP)** was developed to add IP services to asynchronous serial links. **Van Jacobson Compressed SLIP (CSLIP)** is a variant of SLIP that improves throughout, primarily by sending only the differences between data packet headers instead of one full header per packet. The **Point to Point Protocol (PPP)** is a later, enhanced version of SLIP that includes error-correction and optional data compression.

Trumpet Winsock supports all of the above protocols. Just check the one(s) supported by your ISP.

Set the **SLIP port** to the COM port used by your modem; this field should have been named "SLIP/PPP port" since a correct value is required by either protocol.

The **Baud rate** can range up to 115,000 bps. Set it for 19,200 bps unless you have a buffered UART. A rate of 38,400 bps is about the maximum you can reliably get from Windows 3.1's native comm driver. Try a replacement comm driver such as **CYBERCOM.DRV**, a freeware program. Many Windows communication programs replace Win 3.1's **COMM.DRV** with their own drivers during installation. To see if your system is using a replacement driver, search your Windows **SYSTEM.INI** file

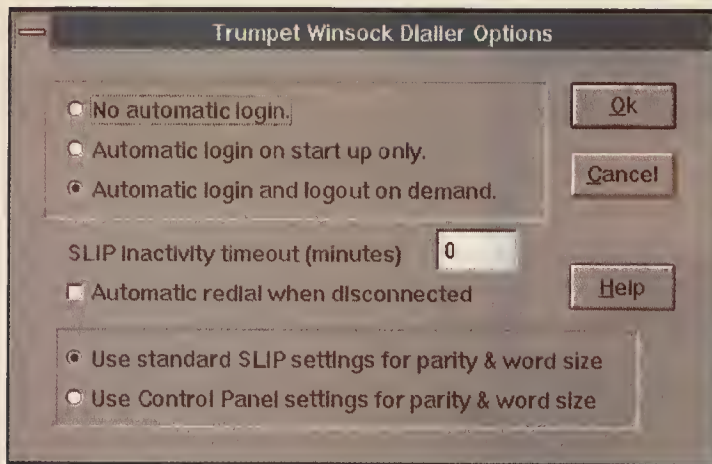


Figure 2

for the line **comm.driv=** - if the right-hand side of the equation isn't **comm.driv** then you are using a replacement.

Hardware handshaking enables RTS/CTS flow control. It should be enabled if you are using a modem which supports hardware flow control, as all v.32, v.32bis and v.34 modems do. (If you have a slower, more primitive modem, you will not enjoy a SLIP/PPP connection very much.)

Online Status Detection is needed if you plan to use Trumpet Winsock's auto-login/logout scripts. Click on **DCD check** to use the Carrier Detect method if you are using a modem with hardware flow control. Choose the **DSR** (Data Set Ready) method only if you are using a hardwired serial connection.

Select **OK** to save these settings. Exit Trumpet Winsock and restart it, so the settings will take effect. Nothing useful will happen; we have not yet told Trumpet Winsock how to dial up and log on to your SLIP/PPP provider.

USING THE LOGIN SCRIPT

Select the **Dialler** item on TCPMAN's main menu. Select **login.cmd** from the pulldown menu.

The first time you run this script, you will be prompted for

- your ISP's **phone number** (including any required dialing prefix, e. g., 9, to dial 9 for an outside line and wait one second to get it)
- your **username**, e. g., dhakala
- your **password**, which will be displayed as asterisks

This data will be stored in the **TRUMP WSK.INI** file (your password will be

encrypted). You can change these items later using the **setup.cmd** on the Dialler pull-down menu.

If you are very-lucky, the sample **login.cmd** script will work without modification. You'll get a message to the effect that a SLIP or PPP connection has been established and the script was successfully completed. You can now launch Netscape or another Winsock application.

If instead you get the message "**script aborted**," the sample **login.cmd** script does not match your ISP's login procedure. Select the **bye.cmd** script from Dialler's pulldown menu to terminate the call.

Ask your ISP for a customized Trumpet Winsock script; many ISPs can provide one. If your ISP does not offer such a script, you will need to edit the **login.cmd** script to accommodate your ISP's login procedure. Grab pen and paper; you'll need to take notes during your next attempt. (Trumpet Winsock should include a script recorder; perhaps in a later version.)

Select **Manual Dial** from Dialler's pulldown menu. This option puts you in terminal mode, giving you command-line control of the modem. Initialize your modem by entering **AT <string>** where **<string>** is whatever string of AT commands you need; often a simple **AT Z** is sufficient, but you may need to enter specific commands for optimal performance.

Enter **ATDT <number>** where **<number>** is the phone number (including any required prefix) of your ISP. Once connected, you will probably be prompted for your username and password. Your ISP may give you a choice of a SLIP or PPP connection. Write down the last few characters of each prompt and your responses, so you can enter them in your **login.cmd** script later.

After manually negotiating a SLIP/PPP connection and documenting the essential prompts and responses, run the **bye.cmd** script again to log off. Select **Edit Scripts** from Dialler's pulldown menu; this item runs Windows Notepad

and lets you edit or create script files. Select the **login.cmd** script and edit it as necessary. Trumpet Winsock's scripting language is feature-rich, but the basic variable names and functions are easily mastered. Complete, if somewhat terse, documentation is included in the Windows help file.

AUTOMATING LOGIN/LOGOUT

Select the **Options** item from Dialler's pulldown menu. (see figure 2) If **automatic login/logout** is selected here, you won't have to manually tell TCPMAN to run the **login.cmd** and **logout.cmd** scripts. Just run any Winsock application and exit it when your session is over; TCPMAN will login to your SLIP/PPP account and disconnect as needed. The **SLIP inactivity timeout** value determines how many seconds TCPMAN should wait before logging you out if there is no SLIP activity on the line. Set this value to 3-5 minutes, so you can read a Web page without timing out but can't accidentally leave a link on all night. A zero value disables inactivity timeout - not a good idea.

A related item, **Demand Load Timeout**, is found on the **FileSetup** screen shown in Figure 1. "Demand loading" is the loading of **WINSOCK.DLL** and **TCPMAN.EXE** whenever a WinSock-compliant application programs demands them. The timeout value is the number of seconds TCPMAN will remain loaded after the last WinSock application is unloaded. A value of 5-10 seconds is advisable; a zero value will keep TCPMAN active indefinitely.

LAN INSTALLATION

Trumpet Winsock supports LAN connections via packet drivers and its own **WINPKT.EXE** software shim. A packet driver is a small bit of software that sits between your network card and TCP program. Its purpose is similar to that of your computer's BIOS (Basic Input/Output System): to provide a standard interface that other software can use. If a packet driver was not included with your network card, you can retrieve a comprehensive collection of over 60 public domain drivers from <http://www.crynwr.com> - the homepage of Russ "Mr. Packet Driver" Nelson.

The packet driver is configured in your network batch file - **AUTOEXEC.BAT** in my case. The packet driver command line consists of the packet driver's executable filename, a hexadecimal **interrupt vector**, an **IRQ** and an **I/O address**. Interrupt vector 0x60 is standard, but

packet drivers can be used to interrupt vector in the range of 0x60 to 0x7F.

Ne2000 packet driver with Novell NetWare access using WINPKT

Specification of the -n switch of the packet driver is important. Some packet drivers don't support this switch. In that case, you may be forced to use ODI instead. An example could be the Xircom Pocket Adaptor.

```
ne2000 -n 0x60 2 0x300
WINPKT 0x60
pdipx
netx
```

Trumpet Winsock's WINPKT shim makes sure that data packets are routed to the correct virtual machine running under Windows' Enhanced mode. WINPKT must use the same interrupt vector that your packet driver uses. The following batch file command lines configure the NE2000 packet driver and WINPKT for use under Novell Netware:

Return to Figure 1 for a moment. The **Packet Vector** field in TCPMAN's **FileSetup** window must be set to the packet driver's interrupt vector value. Note that only the last two characters of the interrupt vector value (60 to 7F) are used in this field.

Trumpet Winsock 2.1 will work with Windows 95, but you will have to remove Win 95's own WINSOCK.DLL and some 32-bit applications will not run under this combination. Windows NT gives Trumpet WinSock the willies; Tattam is currently investigating why. Trumpet's help file documents a number of unsupported network configurations including ODI, NDIS, Windows for Workgroups, PKTMUX, Cabletron Network Cards, C/SLIPPER, VLM and Token Ring.

FINE-TUNING

A number of variables can affect the performance of a TCP/IP connection. Most of them are unpredictable because they depend on the intervening networks these datagrams cross, or the characteristics of a destination site on a given day. TCPMAN offers several configurable options that can help you adjust to changing conditions:

MTU - the Maximum Transmission Unit size in bytes. The MTU is the maximum amount of data that can be transmitted in one packet on a given net-

work. Ethernet's MTU is 1500. An MTU value of 1006 is a de facto standard for SLIP servers. If your MTU is set too large, packets will be fragmented as they pass through intervening networks with smaller MTU values. Performance will suffer, as time is lost reassembling packets. Too low a value decreases the data/header ratio, effectively lowering the amount of pertinent data sent in a given period. Experiment with MTUs between 576 and 1000 if you use a SLIP/PPP connection; go for 1500 for all-Ethernet connections.

TCP MSS - the Maximum Segment Size is the largest segment of data that the WinSock is prepared to receive during a given session. When two computers connect, they settle on the lower of their respective MSSs for that session. Too large an MSS value results in large IP packets which can be fragmented as they traverse intervening networks with smaller MSS values; performance suffers as the packets must be reassembled. Too low an MSS leads to a low data/header ratio, also decreasing performance. The MSS value should always be at least 40 bytes less than your MTU, because most headers are 40 characters long; start with such a value. If you experience sluggish performance, decrease your MSS.

TCP RWIN - the TCP Receive Window determines how much data the receiving computer is prepared to receive. An

RWIN set too large will result in data loss. Too small an RWIN makes for a very slow connection, as each packet has to be acknowledged before the next one is sent. Set the RWIN value exactly 3 or 4 times your MSS value.

TCP RTO MAX - the TCP Retransmission Time Out value sets an upper limit on retransmission timeouts. Frankly, I've no idea what this does. It may specify the maximum time before a garbled packet is retransmitted, or the maximum time Trumpet Winsock will try to retransmit a garbled packet. The help file suggests, "It may be useful to lower this to perhaps 10 seconds when using interactive programs such as Chat or Telnet software over a connection with a higher than average packet loss." When in doubt, leave the default value alone. The various FAQs on Trumpet Winsock and WinSocks in general don't mention RTO MAX at all.

FIREWALL SETUP

A "firewall" is a software application which stands between one network and the rest of the Internet. Machines "behind the firewall" simply do not exist in the Internet at large. No one else on the Internet can access any machines that are behind a firewall. Security is the first firewall application that comes to mind -- if hackers can't find you, they can't hurt you.

Local IP addresses			
Net	0.0.0.0	Mask	0.0.0.0
Net	0.0.0.0	Mask	0.0.0.0
Net	0.0.0.0	Mask	0.0.0.0
Net	0.0.0.0	Mask	0.0.0.0

Figure 3

But there are other reasons for using a firewall. First, the public Internet-connected side of the firewall requires just one registered IP address. Network machines on the private side of the firewall can use any addresses, even some that may be duplicates of addresses out in the Internet's Domain Name System. Second, a firewall allows control of the Internet services that a given network's users can access. Employers can keep workers from spending time in non-business newsgroups, Web sites, etc.

Another program allows communication between the two sides of a firewall (the Internet and private network sides). Socks v4.2 is a bridge program often used in conjunction with firewalls; <ftp://ftp.nec.com/pub/security/socks.cstc/> for more information.

Trumpet Winsock supports firewalls. Select **File\Firewall Setup** from TCPMAN's menu to pull up the screen shown in Figure 3.

Check the upper-left box to enable firewall use. Enter the IP address of the firewall program in the **IP address** field; this is the address that will be "visible" to the rest of the Internet. Enter the port that the firewall will use to communicate with Trumpet Winsock in the **Port** field. Note that this port is not a COM port on your local computer, but a logical port used by the firewall server; get it from your network administrator.

The Firewall User ID is your own user ID string on the private side of the firewall. The Local IP address fields hold the addresses of any networks which will be considered "local" by the firewall; that is, the firewall software will not "protect" your machine from access by machines located on these local networks. Each local network will have its corresponding netmask.

WINSOCK & TRUMPET WINSOCK FAQs

Trumpet Winsock's help file includes some rather skimpy FAQ (Frequently Asked Questions) and their answers. I found much more detailed help at <http://mars.superlink.net/user/mook/winfaq.html> - The Winsock FAQ page maintained by Michael Jason Mezaros - and at <http://www.webcom.com/~llarrow/trouble.htm> #1.8 - the Trumpet Winsock FAQ page maintained by Lynn D. Larrow.

Windows Sockets Specification v2.0

An early release of the Windows Sockets specification v2.0 was posted to the Internet on May 12, 1995. Intended as a framework for application design, the provisional spec is not intended to support commercial applications. The final release of WinSock 2.0 is expected in the first quarter of 1996, according to Martin Hall, chairman of the Windows Sockets Group consortium which defines the WinSock specification. Microsoft and Intel, both members of the consortium, will release a beta developer's kit for Winsock 2.0 in the third quarter of this year.

The big news in v2.0 is "transport-independence;" WinSock 2.0 supports Network IPX/SPX, DECnet and Open Systems Interconnect (OSI) as well as TCP/IP. It will also provide network connectivity for Windows 3.x, Win95 and Windows NT. WinSock 2.0 will also add support for new transport media such as Asynchronous Transfer Mode (ATM), ISDN and wireless systems. Users are relieved to know that as WinSock 2.0 applications become available, they will not have to worry about transport compatibility when purchasing software. According to Hall, WinSock 2.0 is a fully open specification and other operating system vendors are welcome to implement it on their systems. IBM and Apple have chosen not to do so.

The current WinSock 1.1 spec suffers from interoperability problems. Each vendor has a different implementation and there are no guarantees of compatibility. To address this problem, Stardust Technologies Inc. (which Hall also heads) opened the WinSock Labs facility in June. WSL will assist and advise developers in designing interoperable code, test applications on a broad range of platforms and issue certifications to vendors whose programs pass the tests. Contact: Stardust Technologies, Inc., (408)438-6643 voice; <http://www.stardust.com>

BEATING THE PHONE COMPANY:

UUCP NEWS FEED VIA RLOGIN

By James G. Stolic

I run a medium size BBS at (408)372-9054 out of Monterey, California. A short while ago, I was looking for a way to provide Internet connectivity to my users at a reasonable cost. Currently, the only provider in my area is Netcom, but it's no longer providing UUCP feeds. The only other option I had was to find an inexpensive provider in San Jose, a long distance call from Monterey. I did find one called **a2i Communications**, which offered me both a UUCP feed and a shell account for a monthly fee of \$20. But in order to carry the 200-300 USENET newsgroups I wanted, I was going to have to pay approximately \$400 in long distance phone charges each month! I found a better way.

This article explains how to configure a **uucp** script to exchange batched mail via the UNIX **rlogin** command. Exchanging mail in this way enables you to dial a local Internet provider - who may not offer a UUCP feed -- and rlogin to a remote provider that *does* offer a UUCP feed - while bypassing long-distance phone companies!

First, you will need to establish a SHELL account with an ISP, and a UUCP feed account with a (long-dis-

Original Uucp Script For Dialing Long-Distance UUCP Provider

#Systems file for a2i, created 5/25/95
by EO.

```
a2i f1 f2 f3 f4 g "" ATZ OK
\dATDT2939010 CONNECT \c gin:--
gin
Uamos word:--word 87jR2.Q
```

Modified Script For Local Netcom Node

#Systems file for a2i, modified
6/09/95 by EO.

```
a2i f1 f2 f3 f4 g "" ATZ OK
\dATDT6447850 CONNECT \c gin:--
gin
sugar word:--word uncle }:--} feed
word:--word 87jR2.Q
```


tance) ISP. Now, configure your BBS or network and ensure that your UUCP feed is working via the direct dialing of your out-of-town provider. Once you have ironed out all of the bugs and idiosyncrasies of running a UUCP feed, you are ready to modify your **uucp login** script, which is used by your mail program to dial the provider and initiate the transfer.

Login scripts vary according to the software you are using. The example that follows is a script I wrote for **PCBoard 15.21's UUXFER** program. NOTE: the script is actually one continuous line; however, I have split it over multiple lines so that it formats correctly to the page.

In order to distinguish clearly the login names and passwords, let's use the following examples:

- for **Netcom** (the local-call SHELL provider), login name = **sugar** and password = **uncle**
- for **a2i** (the long-distance UUCP feed), password = **87JR2.Q**

There is no need to specify the login for the UUCP feed, as we will do that in the rlogin batch file that we will create and store in your Netcom's home directory.

Now that we have our script for direct-dialing our UUCP provider working, let's study our modified **rlogin** script. First, I have changed the dial-up number to the number for the local provider's node (Netcom in this example). Then I changed the login and password to reflect the local account. Following those changes, you will notice the } braces. After UUXFER logs into your local account and signs on with the proper password, it needs to be told what to look for next. The server you logon to - which may vary with each call - is always enclosed in braces (check the prompt your local provider uses and substitute accordingly), so I have told UUXFER that when it sees the braces it should execute the batch file called **feed**.

You now will need to call your local provider and after logging in, type **pico feed** at the main prompt. This will create an empty text file called **feed**. At this point, we will type out the following rlogin command along with the parameters we will use for logging into the UUCP feed site. Replace **hustle.rahul.net** in the following command with the address of your UUCP feed server: **rlogin hustle.rahul.net -l Uamos**

Now press **Ctrl-x** to exit to save the file known as **feed**. At the command-line prompt, enter the command **chmod +x feed** to make **feed** an executable batch file.

You will have to ask your provider to configure his server to allow your incoming rlogin. He will need the login name you use on your local provider to do this. (Rahul of a2i Communications was very happy to assist me in my efforts and made all of this possible.)

Also notice the **-l** switch in the rlogin command line above, followed by the UUCP login ID you use with the feed site. Unfortunately, UUXFER treats any switches or other commands as separate commands or programs. Because of this, we have to tell our script to execute the batch file known as **feed**.

Getting back to our script, we see that after UUXFER sees the braces, it will run the **feed** batch file which will in turn rlogin to the appropriate server with your UUCP username. Next you will be prompted for a password. When UUXFER sees the string "word" it will enter your UUCP password.

Note that in the modified script I have removed the **CONNECT lc** portion of the original script when using rlogin to log into the UUCP server. I have done this because we are already logged in, thanks to our feed batch file and the use of the **-l** parameter with **rlogin**. All we need to do now is have our script enter the UUCP password.

Once our UUXFER script enters the appropriate UUCP password (in this case, **87JR2.Q**), you should see the following message: **Shere=sitename**. The transfer should begin just as it would had you dialed in directly. Please note that the throughput will be nearly the same, as the feed server is processing the job at the same speed as before.

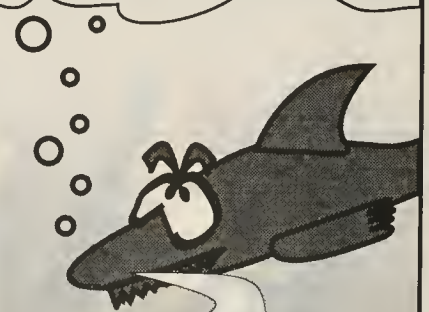
The good news is that you're connected to a *local* phone number and transferring all of your batched news without long-distance charges! Congratulations if everything works. With enough persistence and perspicacity, you should be able to adapt this script to work with nearly any program or environment. ♦

In certain instances, the rlogin command may be unreliable. The rlogin command traps certain sequences of characters when it sees a dot at the beginning of a line. If this happens, you may want to experiment with **BINARY telnet**. If your provider does not support BINARY telnet, you will need to obtain the source code and recompile it on your local provider's system. With any luck, your UUCP transactions will never include the character sequences trapped by rlogin, making this precaution unnecessary.

You can increase the throughput of your UUCP transfers by modifying the **g** parameter in PCBoard's uucp chat script. The **g** parameter controls the window and packet size used during the transfer. Try changing it to read **g65**, a setting which works well on my system (my transfer rate increased from 600cps to 1600+ cps). Consult your PCBoard manual for more detailed information.

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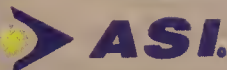
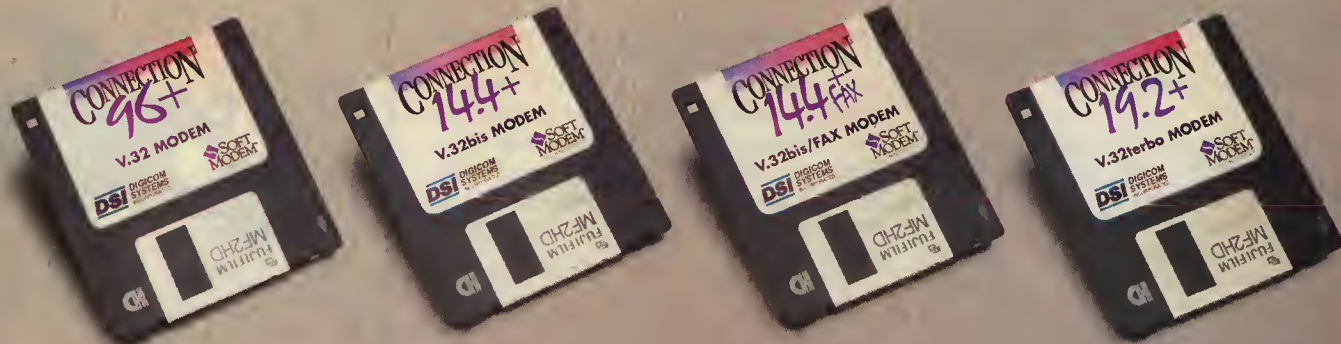
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Tony Eric Hakala

tony://eyes.of.a.child.edu

by David Hakala

[Author's note: this story drew mixed reactions around the office, ranging from diplomatic Marla's "Sweet!" which could mean anything, to Jack's "I'm retching... But maybe I'm just grumpy today. Run it if you want to." Even Roger Mertes, Ad Director and doting father of a "Baby" legally known as Carrie, said it was "well-written" but wondered "whether it belongs in Boardwatch." On the other hand, Gary Funk, our Most High Technocroid, amazed me by deeming this piece "OK." This limited sample tends to validate theorists who suggest that (most) men are irrationally discomfitted by displays of unconditional love. But I know myself, and I think I know my readers. Still, I crave feedback. Send your reactions (be ye man, woman or in transit) to e-mail://david.hakala@boardwatch.com/]

"Whatcha doing with the cum-pooter, Daddy?"

"Answering my e-mail, sweetie. Wanta help me?"

"Yeah! C'n I sit on your lap?"

"It's all yours, Boo-Boo."

"What button do I push?"

"Start with this one... now that one... we want the letter E, over here... Can you find the letter L?"

And so, two years ago, began my son's initiation as a citizen of the Network Nation. Being a certifiable modem-maniac, I tingled with pride and anticipation when Tony first showed interest in life online. Oh, the wonders I'd show him! The skills I'd teach him would make him a millionaire before he

reached puberty. The places we'd go and the things we'd do together would immutably cement his belief that Dad is God, Santa Claus and Barney the Dinosaur rolled into one.

My parental hubris has been justly humbled. Teaching is a learning experience. Now 4 years old, Tony has put cyberspace in its proper place as just one of many adventures he can enjoy with Dad. Our sojourns into the Net originate from real-world experiences, as you will see below. Virtual reality is merely a not-too-important alternative to "real fun," something we do on a rainy day, or when he has a cold, or when Dad's just too pooped to chase ducks around the pond any more.

Leading (and following) a child through the Net is a tender experience, not a technical one. Come share it with Tony and me, then share it with your own children.

E-MAIL: "DADDY, READ MY TICKET!"

Answering e-mail with Tony would be excruciatingly tedious were it not for the spell of timeless contentment that settles over me as he snuggles into my lap. At first, we often timed-out and lost carrier while hunting for the next letter in a word; now we take the time to log off and write our letters offline. Tony prefers a vintage 1993 text editor called **SLED.COM** (Silly Little Editor) because it has nice cyan letters and red triangles denoting carriage returns. He writes me "tickets" instead of letters; something to do with his daycare class' visit to a police station.

Tony thinks cut-and-paste is the greatest invention since Play-Doh. Some of his notes consist of endlessly copied lines of "I love you, Daddy, and you're in my heart all the time," a birthday greeting he recorded on a microchip greeting card last year. Other messages indicate his favorite ASCII character of the week; I've received several kilobytes of curly-braces and percent symbols, and the caret figured prominently in a letter "from Bugs Bunny." Occasionally, like a monkey writing Shakespeare, he embeds a recognizable word in his letters. "Booger" caught me by surprise; he said it meant "kisses."

"Tony, are you ready to send that letter?"

"It's a ticket, silly!"

"Fine; is it ready to mail?"

"I'm not finished yet. I'm making carrots."

"I need to do some work on the computer. Can we save your ticket and finish it later?"

"No. It's still my turn. You be patient like you're always telling me to be."

SHAREWARE: "I WANT A NEW GAME!"

We've shopped for shareware, downloading dozens of coloring-book, counting, alphabet and game programs. The problem with shareware is that it takes too long to download.

"Daddy, can I type now?"

"When the computer finishes bringing us this package, Snuggle-Puppy."

"Is it finished yet?"

"Not yet; don't touch any keys until that blue bar crawls all the way to the end of the line."

"Why's it so slow?"

"Because this is a big package, and we have to squeeze it through this skinny wire. How about we sing a song while we wait; what would you like to sing?"

"Sing 'bout how you love me all the time."

***Let me tell you a Secret
about a Father's Love—***

***A Secret that my Daddy
said was just between us:***

***Y'see, Daddies don't just
love their children ev'ry
now & then;***

***It's a Love without end,
Amen.***

***— (George Strait, "Love
Without End")***

Tony's favorite shareware package is **Bert's Coloring Programs v4.1**, an ASP (Association of Shareware



Professionals) classic consisting of a master program and various sets of templates for prehistoric animals, Christmas, African animals, whales and dolphins. (MS-DOS; look for filenames **BERT???ZIP** on any of the hundreds of ASP BBSs).

"Bert" knows how to design an interface for preschoolers; Tony mastered this one at the age of 26 months. He selects a background scene, then chooses an animal from the gallery and pastes it into the scene. Each animal figure comes in four sizes, and Tony picks one that fits where he wants it - on a mountain or schoolhouse, or perched on a cloud. The color and pattern pallets give him a wide range of creative options, though he usually settles on one color (purple this month) for sky, grass and animals.

The program teaches fine motor skills by requiring a child to carefully position the mouse in order to fill the smallest areas of a figure with color and pattern. **\$20.00** registration fee for the master program and one template set, just **\$5.00** for each additional set registered. Contact: Theron Wierenga, P.O. Box 595, Muskegon, MI 49443.



Krazy-Face (MS-DOS; filename **KFACE101.ZIP**) is another favorite at our home. It's a drawing/pasting/coloring program that will delight any child who can manipulate a mouse. K-F features free-form drawing with pencils, brushes and fill-patterns, as well as an extensive collection of colorful clipart.

Tony especially likes to pick a "blank" face and fill it in with eyes, noses, ears, teeth and mouths with utter disregard for anatomy. He also makes collages of candy canes, butterflies, stars and other rubber-stamp shapes. I can clean the whole house while Tony's absorbed in this program, with only a dozen or so interruptions to "Come see what I made!" Best **\$15.00** babysitter ever ZIPped. Contact: Progressive Products, P.O. Box 1575, Paso Robles, CA 93447. BBS: (805)239-7672

THE WEB: "LET'S SEE WHAT ELSE WE CAN FIND!"

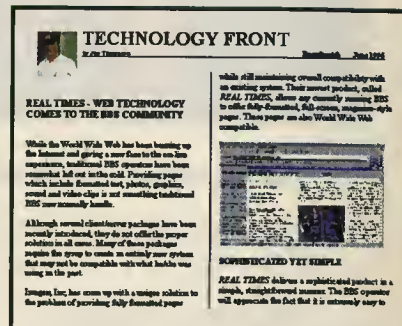
Last month's *National Geographic* featured a story about "poison arrow" frogs - marvelously pigmented creatures whose venomous exudations make the arrows of rain forest hunters frightfully effective. That issue made it to Show N Tell down at daycare, and led us to look for more photographs on the Web. We started at <http://www.infoseek.com> and searched for "poison frogs." Among the ten free hits Infoseek gave us was <http://gto.ncsa.uiuc.edu/pingleto/herps/pix1.html> which produced the charming little fellow below.



Frogs naturally lead to snakes, and Infoseek led us to the Colorado Herpetological Society's Internet Resources Page - http://www.atd.ucar.edu/rdp/ris/chs_pointers.html - which is packed to the margins with ftp and WWW pointers relating to snakes, frogs, crocodilians, etc. From there we leapt to <http://www.charm.net/~jcain/david.html> - a "snake site" created by a four year-old boy named David Cain, with help from his father, John.

The Burmese Tree Python shown above started me reminiscing about my erstwhile pet python, Gilligan. I had "Little Buddy" direct from the egg and raised him to over eleven feet in seven years.

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"Daddy, where is Gilligan?"

"When you were born, I sold him to a friend of mine."

"Why'd you do that?"

"Mommy was afraid Gilligan might eat you."

"Would Gilligan eat me?"

"Only if you smelled like a rabbit; but I didn't want Mommy to worry."

"Do you miss Gilligan?"

"A little bit. But I don't miss anything when I'm with you."

"I love you, Daddy."

"I love you right back, Tony. Let's sing the Sneaky Snake song."

***Watch out for old
Sneaky Snake!***

***He just might be near.
And while we are
not looking***

***He's drinking our root
beer!***

***- Tom T. Hall,
"Sneaky Snake"***

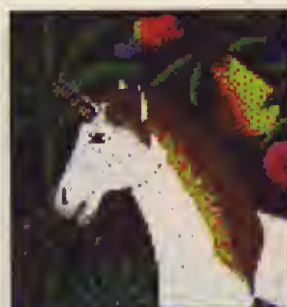
Snakes led to lizards. We'd recently acquired a basilisk, also called the "Jesus Christ" lizard because of its ability to run across water. Ours is named "Cute Baby Lizard." We found the following photo of an adult specimen at <http://gto.ncsa.uiuc.edu/pingleto/herps/images/> along with many other colorful critters.



"Daddy, he doesn't look like our bask-a-list!"

"This one belongs to a different family."

Lizards led to alligators <http://gnv.ifas.ufl.edu/www/agator/htm/alligator.htm> (yes, just one "l" in this URL), then to dragons - <http://s10d.smb.man.ac.uk/~spb/AFDFAQ.html> - and on to fairy tales- <http://maia.au.ac.th/mirrors/entertainment/ftales/> - in a giddy giggle of free association.



Dragons and fairy tales suggested unicorns - rare, solitary beasts which were incredibly difficult to find. But after several dozen false starts, we found at <http://www.enslyon.fr/~jcdubacq/amber/images.html> an entire herd of our favorite beast. Here are just a few of the marvelous images at this Lyon, France, site:



We might have gone on like this for another hour, but...

"Daddy, can we turn off the cum-pooter now?"

"Sure." <click> "What do you want to do now?"

"Let's go catch cray fish!"

"You go get the hot dog, I'll grab the fishing line."

"I love you, Daddy!"

"I love you too, squirrel-bait." ♦

***Teach
Your kids HTML
So children's hell
will slowly go by.***

***And feed
them on your dreams:
the ones you picked,
the ones you're known by.
[But don't you ever ask
them "Why?"
If they told you, you
would cry.
Just look at them
and sigh. . .***

***And know they love
you.***

***- apologies to Seals
& Crofts***

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LEGALLY ONLINE

STRATTON OAKMONT V. PRODIGY: THE DANGER OF BEING A FAMILY SERVICE

by Lance Rose

In May, 1995, the N.Y. Supreme Court (ironically named, since it is the lowest court level in the state) held that the Prodigy online service is a "publisher," and hence responsible for libelous messages posted on its system by its members. This summary finding could potentially make Prodigy liable to the investment firm Stratton Oakmont for up to \$200 million in damages. Naturally, the holding instantly received a lot of attention, especially from other large online services: it portends a whole new vista of legal risk for both them and their insurers. How did the Prodigy ruling come to be? What does it mean?

For the proper background, let's go back a few years and look at the history of liability for information distributors. The most important case in this area was *U.S. v. Smith*, in which the Supreme Court said a book store owner is not responsible for the illegal contents of books when he is not aware of them. He can not get in trouble merely for carrying the books. This principle was then applied to magazine distributors by the federal appeals court in New York in *Lerman v. Flynt*.

A magazine distributor is in the business of moving magazines from publisher to retail outlet. If some magazines in the stack contain illegal materials, how is the distributor supposed to know about it, unless the law compels him to read every issue of every title? Recognizing this problem, the court declined to force distributors to review every magazine to avoid liability. Such a burdensome legal requirement would "chill" freedom of the press for all the materials they distribute, legal as well as illegal.

What exactly is this First Amendment protection for book stores and magazine distributors that was recognized in *Smith* and *Lerman*? It wasn't "freedom of speech," as neither the book store nor the distributor had spoken a single word at issue in these cases. It wasn't "freedom of the press," as neither defendant had published a single book or magazine. It was, instead, yet another freedom: to distribute the speech and publications of others.

Unless distributors are also protected by the First Amendment, speech and press protection in themselves are nearly meaningless. What good is freedom of speech if the government can prevent you from

reaching your audience by shutting down your distributor? In our mass society, protecting the channels of speech is at least as important as protecting the content of the speech. So although the freedom to distribute speech is not mentioned in the Constitution, it is vitally important to the circulation of ideas in this country, and indispensable to the realization of our other First Amendment freedoms.

The law laid down in *Smith* and *Lerman* was applied to an online service in 1991, in the well-known federal case *Cubby v. CompuServe*. The publisher of an electronic newsletter sued a rival newsletter publisher for defamation, and added CompuServe as a defendant because CompuServe had helped distribute the offending newsletter. The judge dismissed the case against CompuServe on summary judgment, ruling that CompuServe, like the book store owner and magazine distributor, could not be held responsible for all materials on its system. Requiring CompuServe to review all online materials for illegality would slow down the entire system far too much, effectively penalizing the distribution of per-

fectly legal speech in the name of preventing the occasional illegal file - another instance of the Constitutionally prohibited "chilling effect."

The *CompuServe* decision was greeted with cheers in the online communities, as it signaled that online services and bulletin boards could get down to the business of carrying information without having to act as message cops. If someone has a problem with some message or data on an online service, then track down the person who put it there, but don't drag the "messenger" - the online service - into it.

Unfortunately, the jubilation was short-lived. In the case of *Playboy v. Frena*, a federal court in Georgia held that the Tech's Warehouse bulletin board system was liable for infringing Playboy's copyrights in various girlie pictures, found in digitized form on the system. The kicker here was that the judge said the system operator was responsible for the infringements on his system, regardless of whether he knew about them. Never mind that the decision was full of holes, such as the likelihood that the system operator knew full well about the infringements, and the

"In our mass society, protecting the channels of speech is at least as important as protecting the content of the speech."

Lance Rose is an attorney practicing high-tech and information law in Montclair, NJ with the firm Lance Rose & Associates. He can be found on the Internet at elrose@well.com, and on CompuServe at 72230, 2044. He is also author of *NetLaw*, the online legal guide, published by Osborne/McGraw-Hill and available at better book stores everywhere.

court's failure to exhale a single word about First Amendment protection for computer bulletin boards. The fact remained that an online system was responsible for the illegal contents of certain files, and his claimed ignorance of their illegal nature was deemed immaterial. After Playboy, online services were becoming afraid of the huge monitoring burdens that might be facing their businesses.

Recently, another court decision came down, in *Church of Scientology v. Ehrlich* in a federal court in L.A., that offered hope of pushing back the potential copyright problem for online distributors created by the Playboy case. The Church was pursuing ex-minister Dennis Ehrlich for allegedly posting copyrighted and secret Church materials in USENET newsgroups on the Internet. It started the lawsuit with an "ex parte" temporary restraining order (an order granted without inviting the other side to court to contest it) against not only Ehrlich, but also the local bulletin board and the Internet access provider, Netcom, through which Ehrlich was supposedly posting his materials to the Internet. When all three defendants contested the restraining order, the judge lifted it against the BBS and Netcom, while continuing the order against Ehrlich.

In doing so, the judge recognized an essential distinction: between Ehrlich on one hand, as the individual supposedly directly responsible for illegal messages, and the BBS and Internet access provider on the other, as online services that cannot be burdened with the chilling obligation of monitoring the messages of others just to catch the occasional illegal one.

With this distinction, we can see a possible reconciliation between the *CompuServe* (no liability without knowledge) and *Playboy* (copyright liability regardless of knowledge) cases: while it is legally possible to hold online systems responsible for copyright infringements they don't even know about, the First Amendment status of those providers can be the basis for sharply restricting remedies available under copyright law against them. Thus, an online service may be ordered by a court injunction to eradicate a named file or message from its system, and technically it would be an infringer; but the court can then take that service's protected First Amendment status into account, and refuse either to assess money damages or order the service to start monitor-

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ing generally for other, unknown infringements. Put another, more legalistic way: the traditional copy-right doctrine that allows for absolute infringement liability can remain intact, while the First Amendment need to avoid chilling distributors is satisfied by reducing remedies against distributors as necessary.

Which finally brings us back around to the Prodigy holding. The case is named *Stratton Oakmont v. Prodigy*, and was brought by the Stratton Oakmont company because some unknown Prodigy user said bad, and supposedly false, things about them in the "Money Talks" section of Prodigy. Apparently, the account used for posting the problem messages belonged to an ex-employee of Prodigy, who was no longer with the company, but was not using the account either; someone else grabbed the account and used it anonymously.

Also interesting is the claim that Prodigy left the problem messages on the service for as long as 19 days. This long of a period leaves a lot of opportunity for speculation that someone controlling the system could easily have been aware of the posting in question. Most system operators worry that an illegal message left overnight or over a weekend might get them in trouble. Problem postings lasting three weeks usually isn't on their radar screen of legal risk to their systems.

Stratton Oakmont went in for the quick kill, asking the state court for a summary judgment ruling that Prodigy was a "publisher" of messages, not a "distributor," and therefore responsible for the contents of the messages. To the surprise of most observers, the judge granted their wish. While claiming respect for the principles of the *CompuServe* case, the judge said that Prodigy simply did not qualify as a "distributor" entitled to the First Amendment protection granted to CompuServe.

What did Prodigy in? Mainly, its marketing of itself over most of its early years as a content-controlled "family" service, combined with Prodigy's practice for many years of monitoring message bases. The judge felt this placed Prodigy under a general duty to protect the public against illegal materials on its systems, which was breached when it permitted the posting of the statements about Stratton Oakmont. Prodigy was hoisted on its own P.R.

This result shocked the industry, as a seeming total rebuttal of the First Amendment protection previously recognized for online services in the federal *CompuServe* case. The shock should wear off quickly, though. The decision will be appealed, with outside briefs from many quarters, giving the appellate court an appreciation of the industry impact of the Prodigy ruling which the trial court judge may somehow have missed. There is a very good chance the decision will be reversed, since its reasoning is full of holes.

"In its zeal to extend Prodigy's 'protection' to every kind of legal wrong, the court made a decision that would discourage anyone operating an online system from trying to protect users from anything."

FLAWS IN THE PRODIGY DECISION

What holes? For starters, the Prodigy court used Prodigy's "family service" marketing approach to impose a general duty on Prodigy to keep all illegal and dangerous materials off the system - not just defamatory materials, but illegal materials of every sort, from copyright infringement to viruses. This is a total repudiation of First Amendment protection for family-oriented services. In fact, it makes them closer to being insurers of the information they carry. The resulting chilling effect would not do such services, or the people who use them, any good. Family-oriented services would be forced to monitor all messages and files on the system and maintain immensely expensive insurance, which could well force such systems entirely out of business.

Ironically, free-for-all services which make a point of not monitoring or controlling any content would be favored under the court's ruling, since they don't make any promises of keeping only "decent" content on the system. In its zeal to extend Prodigy's "protection" to every kind of legal wrong, the court made a decision that would discourage anyone operating an online system from trying to protect users from anything.

Another wrong turn by the court was its treatment of Prodigy as a unitary ser-

vice, which could be adequately described as a whole as either a "publisher" or a "distributor." In fact, large online services like Prodigy perform a range of functions, including "publisher," "distributor," "meeting room," "storage service," "library," "postal system," etc. If the court believed that choosing a metaphor was important for determining Prodigy's responsibility for certain messages, it should have focused strictly on the "Money Talks" section of the Prodigy service, and made the best analogy it could find. Instead, it made a vague, virtually meaningless comparison of Prodigy as a whole to a "publisher," simplifying the legal analysis, but exposing Prodigy to huge liabilities with insufficient reason.

A third wrong move was the court's use of Prodigy's "family service" marketing efforts as reason to hold Prodigy responsible not only to its own members, but to everyone who might be injured by materials placed on Prodigy's system by others. At one point, the court says that by inviting the public to enter its family service, and telling prospective subscribers that it controlled the content of the service, Prodigy took on a responsibility to protect those who did indeed subscribe against online mishaps (although, of course, that responsibility in reality is instantly controlled by the member contract to which all Prodigy subscribers must agree). While many of us may disagree with this theory, which lawyers might refer to as "estoppel," at least it makes sense logically.

But then the court took this reasoning a step further: Prodigy's marketing-based assurances to people that it wanted as customers also somehow made it responsible to protect people who were not injured in their role as Prodigy customers, such as Stratton Oakmont. This just makes no sense. If I invite people into my backyard and promise I will protect them from all dangers, I may be obligated to protect those who enter my backyard based on that promise. But does it also make me responsible if one of those guests throws a rock from my backyard and fractures the skull of someone walking by on the street? I don't think so. Yet that exactly is the kind of strange situation set up by the court in the Prodigy case: if you dare to assure prospective users of your online system that you will provide a safe system, then you must also protect the whole world against what your users might do to it from within your system.

There were also two strange factual findings by the court. First, much of the court's basis for saying that Prodigy was a "publisher" was the fact that Prodigy admittedly monitored messages for many years. However, Prodigy had also given evidence that it had stopped this practice several months before the messages defaming Stratton Oakmont showed up on the system. The judge even mentioned this claim, yet went on completely to ignore it in discussing Prodigy's actions as if it still heavily edited its bulletin board areas. Second, the judge held that the sysop for the "Money Talks" section, Charles Epstein, was an "agent" of Prodigy even though the contract between Prodigy and Epstein specifically stated that Epstein was not an agent, and not allowed to act like one (the point of this finding was to hold Prodigy, as Epstein's "principal," legally responsible for Epstein's action or inaction). The problem is that based on the court's own report of the case, these are issues that should never be decided on summary judgement, as the court did here; they require a full development of the facts and a trial.

The current decision that Prodigy is a "publisher" does not yet establish that Prodigy is in fact responsible for libel. Prodigy can still offer various defenses, such as showing that the critical statements about Stratton Oakmont on its system were true, or that Stratton Oakmont is a "public figure," and thus Prodigy cannot be liable under well-established press liability principles unless it is shown to have acted maliciously toward Stratton Oakmont, or with reckless disregard for the truth, in merely failing to remove the offending messages from public view quickly enough. In addition, no amount of damages has yet been assessed against Prodigy. It may be fighting over \$200 million, or it may be fighting over 2 cents.

So Prodigy has a lot of options left in seeking to avoid a ruinous judgment. But the real news is the court's current holding that Prodigy is a "publisher." This ruling, if upheld, will open the door to a slew of lawsuits for every wrong imaginable against online services large and small, all based not on the services' own conduct, but on dangerous or illegal materials placed on those services by their users. This is why the decision will be appealed by the entire industry, and why it had better be overturned. ♦

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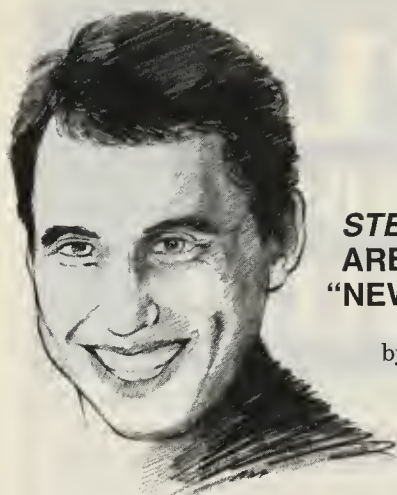
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STERN V. DELPHI: ARE ONLINE SERVICES "NEWS DISSEMINATORS"?

by Eric Schlachter, Esq.

The laws of cyberspace continue to develop, albeit slowly. The debate over the regulation of the Internet and online services has begun to rage at the Congressional level, potentially entangling pornography, hate speech and bomb recipes on the Net in a web of federal regulations. But as these debates wend their way through rhetorical drivel and outright paranoia, at this moment the real law of cyberspace is being developed in the courts.

The recent New York decision of *Stern v. Delphi Internet Services Corp.* (New York Supreme Court, May 1, 1995) exemplifies how the law of cyberspace is being developed in comparative obscurity. *Stern v. Delphi* also indicates the way courts are grappling with the technology of cyberspace in an attempt to craft sensible rules to govern this technology.

The Stern case deals with the issue of whether an online service is a "news disseminator" for the purposes of applying an invasion of privacy statute. *Stratton Oakmont v. Prodigy*, also a New York Supreme Court decision which was issued about three weeks following Stern, deals with the issue of whether an online service is a "publisher" for purposes of defamation liability. (See Lance Rose's analysis of the *Stratton Oakmont v. Prodigy* case elsewhere in this month's "Legally Online" section). While the Stratton Oakmont and Stern courts both engaged in "analagizing" to reach their decisions, the Stratton Oakmont court did not look to or discuss the Stern case in reaching its decision. As this analysis will discuss, the Stern court's methodology could have been useful in reaching a more precise result in the Stratton Oakmont case – and could be helpful in resolving future cases involving online services.

THE FACTS

Delphi is a major national online service and Internet service provider, with approximately 500,000 subscribers. When talk radio host Howard Stern announced his candidacy for Governor of

New York in 1994, Delphi created an online discussion forum for its subscribers to discuss Stern's candidacy.

At that time, to promote its service, Delphi placed some advertisements in New York periodicals, advertising Delphi and its discussion forum on Stern's candidacy. As part of the advertisements, Delphi used a photograph of Stern in leather pants that exposed most of his behind. Although the source of the photograph was not specified, it was clear Stern had posed for the photo, and he did not allege that Delphi's possession of it was impermissible or unlawful.

INVASION OF PRIVACY

Common law recognizes the tort of invasion of privacy, which includes a cause of action for the misappropriation of a person's name or likeness. In New York, the common law tort action has been codified by New York Civil Right Law, Sections 50 and 51, which makes it both a misdemeanor and a tort to commercially misappropriate a person's name or likeness. In this case, it was undisputed that Delphi had commercially appropriated Stern's likeness by using a photo of Stern's behind in its advertisement without Stern's permission.

INCIDENTAL USE EXCEPTION

New York courts have created an exception to the statute called the "incidental use exception." This exception permits "news disseminators" to use a person's name or likeness to advertise the news disseminator. Therefore, if the *New York Times* wants to advertise its news gathering and reporting by using a photograph in an advertisement, the *New York Times* is not liable to the subject of the photo for invasion of privacy, whether or not the *Times* obtained permission from the subject.

Because the exception is available only to "news disseminators," the Stern court had to deal with the "novel" issue of whether Delphi should be treated as a news disseminator.

On the one hand, this is an easy question. While in the 1970s there was great paranoia that the "Fourth Estate" would obtain a monopoly on the dissemination of news, it is clear that the hegemony of the traditional news filters has disappeared. The Internet played a prominent role in such major world events as Tiananmen Square and the failed Russian coup of 1991. Online services typically create discussion forums for the dissemination of news and information within hours or even minutes after major crises such as the Northridge earthquake of 1994 and the recent Oklahoma City bombing. These discussion areas are often the quickest and most accessible way of obtaining news from the source during a crisis. The instantaneous nature and global scope of online services have created a flourishing online information economy that allows many information seekers to bypass the slower, filtered news media. As a result, there can be little question that online ser-

"...the Stern v. Delphi result is a relatively heartening decision for those seeking to protect the rights of computer networks and system operators."

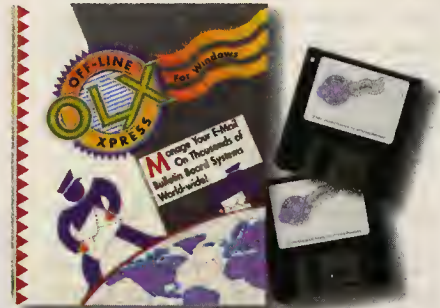
Eric Schlachter is an attorney practicing in cyberspace law with the Silicon Valley law firm of Cooley Godward Castro Huddleson & Tatum. He has a law degree and an MBA in Entrepreneurial Finance from UCLA. He is an adjunct professor of Cyberspace Law at the University of San Francisco School of Law. He can be reached at schlachtere@cooley.com.



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vices are news disseminators, and important ones at that.

On the other hand, online services do much more than just disseminate news. Online services allow users to chat with each other on silly topics, to play games, and to download photos of naked women. A court anxious to look beyond the more "socially valued" functions of news dissemination might easily have derided the significance of the new technology, finding that its news dissemination component was outweighed by its frivolous functions.

At this critical juncture in the court's analysis, Judge Goodman made a leap of heroic proportions. Instead of trying to fit Delphi into a single functional category, the court looked to whether the likeness was used to promote the news dissemination function.

The importance of doing such a functional analysis cannot be overstated. Functionally, online services users can post public messages on a bulletin board, send private e-mail, chat with each other in real time, upload and download information, upload and download software, shop, store information electronically, and so on. No one doctrine of law can cover the rights and responsibilities of sysops and users in such a broad range of functions. Yet, there is always the danger that an uninitiated court will ignore the different functional uses and try to apply the law that is applicable in one function to a function to which the laws are less suited. Judge Goodman asked the questions:

(1) is there a news dissemination component to the service, and

(2) did the advertisement pertain to this function?

By asking these questions, the court used the correct approach – what function is implicated and how did the online service treat that function – that we can only hope will be replicated in future decisions.

SEARCHING FOR THE RIGHT ANALOGY

In deciding whether or not Delphi in fact did act as a news disseminator, the court looked at various analogies to determine if Delphi had a news dissemination function.

The court initially looked to the landmark case of *Cubby v. CompuServe*, 776 F. Supp. 135 (S.D.N.Y. 1991). In *Cubby*,

CompuServe established an independent contractor relationship with the manager of its journalism forum. One of the content providers to the journalism forum disseminated allegedly defamatory material, and the (allegedly) defamed party sued, among others, the manager of the journalism forum and CompuServe. CompuServe pointed out that it had no relationship with the party that wrote the material in question other than that CompuServe allowed the material to be disseminated over its network. The *Cubby* court, recognizing that CompuServe had little control over what content was being disseminated, analogized CompuServe to "an electronic, for-profit library" and further reasoned that CompuServe should not be liable for the content contained on the forum, any more than a library would be responsible for defamatory content in one of its thousands of books.

"...holding that message forums are like a news vendor, bookstore or library could insulate sysops from liability for the actions or statements of their users on such message forums."

The Stern court, looking at the *Cubby* decision, noted that the *Cubby* court had afforded CompuServe the same First Amendment protection as a "distributor of publications." As a result, the Stern court concluded that it is "evident that Delphi's online service must be analogized to distributors such as news vendors, bookstores and libraries." The court's statement is an important application of the *Cubby* holding. Whereas the *Cubby* court went through a number of factors to determine the independence of CompuServe from the content provider, the Stern court took it as "evident" that a subscriber-participation forum (an online bulletin board discussion area) is like a "news vendor, bookstore or library." This is a potentially important conclusion, because holding that message forums are like a news vendor, bookstore or library could insulate sysops from liability for the actions or statements of their users on such message forums.

(In contrast, the Stratton Oakmont court held that Prodigy was the publisher of its message forum, exposing

Prodigy to significant liability for defamation. If the Stratton Oakmont court had considered the analysis in Stern, the Stratton Oakmont court might have considered more deeply the import of its conclusion.)

After sifting through analogies to find the right one, the Stern court stated that the discussion forum was "a newsworthy service similar to a letters-to-the-editor column in a news publication." This statement indicates that the court's search for an analogy had become muddled. Letters-to-the-editor columns are subject to completely different sets of rights and responsibilities under the law. The difference between a letters-to-the-editor column and, say, a library is editorial control. Content publishers such as newspapers have the power to control the content they disseminate and therefore are legally required to exercise that editorial power; their failure to do so can lead to legal liability. There are countless cases in which newspapers have been held liable for defamatory statements contained in letters printed in letters-to-the-editors columns.

In contrast, libraries and bookstores deal in a high volume of content created by third parties. If libraries and bookstores were legally liable for the content of the material they disseminate, these entities would have to pre-review everything – an impossible task. As a result, libraries and bookstores are generally absolved from liability for the content in the materials they disseminate, in the absence of some specific reason why they knew there was a problem.

The court's weak analysis regarding these analogies is compounded by the fact that the court did not look to see how Delphi actually managed the Stern discussion forum. Some online services, such as Prodigy, previously managed their public discussion areas extensively, to the point that the Stratton Oakmont court concluded that Prodigy exercised editorial control and looked more like a letters-to-the-editor column. Other online services do not manage their discussion forums at all, allowing users to disseminate content without any control by the sysop, which looks a lot more like a library or bookstore.

The distinction between primary publishers (publications with letters-to-the-editors columns) and secondary publishers (bookstores and libraries) was not significant to the court's analysis. Either type of publisher can claim the incidental use exception. However, the court failed to realize how its choice of

analogies might affect the application of these analogies in the future. Indeed, in *Stratton Oakmont*, the court reached the conclusion that Prodigy acted as a publisher of its message forum.

After analogizing online services to news vendors, bookstores, libraries, and letters-to-the-editor columns, the court had yet more analogies to make. In trying to deal with the fact that Delphi could be used for both serious (news dissemination) and entertainment purposes, the court said "the proper analogy is to a television network" in that television will broadcast both news and entertainment, but that the television network is eligible to claim the role of news disseminator only for its news component and not its entertainment component. The court's reasoning is sound and accurate, but the introduction of yet another analogy creates some confusion about exactly how the court conceptualized the technology.

CONCLUSION

Concluding that Delphi was a news disseminator and that the advertisement related to Delphi's role as news disseminator, the court awarded summary judgment to Delphi under the incidental use

exception, stating that there was no factual dispute over the application of the incidental use exception to Delphi.

"As online services gain legitimacy in the courts' eyes, the courts should be willing to protect these services from the broad limitations being considered by Congress and state legislatures."

While the case ostensibly dealt with a fine point of statutory analysis and judicially created exceptions, the court's treatment of the issues was significant and may have broad implications. More courts may recognize the power of online services, BBSs, and Internet sites as legitimate competitors to the traditional news media, even though these sites also support other, totally unrelated functions. As online services gain legitimacy in the courts' eyes, the courts should be willing to protect these services from the broad limitations being considered by Congress and state legislatures. Furthermore, a functional

analysis of online services' liability, such as for the actions and statements of their users, could also support the development of an increased number of unmanaged user interactivity forums where the courts will recognize the sysops' limited power to control content.

Unfortunately, the New York Supreme Court, just three weeks after the Stern decision, reached the conclusion in *Stratton Oakmont v. Prodigy* that Prodigy was a publisher of its online message forums. In reaching its conclusion, the *Stratton Oakmont* court did not undertake the difficult factual inquiry into the methods of control employed by the network. However, because the Prodigy decision was more widely publicized than the Stern case, many will hold it up as the latest and greatest statement on the matter.

In the end, the Stern case may indicate only that many courts are trying to be thoughtful and sensitive to the technology in weighing cases. As might be expected with new technology, early litigation will result in a mixed bag, but the *Stern v. Delphi* result is a relatively heartening decision for those seeking to protect the rights of computer networks and system operators. ♦

IF OPERATING SYSTEMS WERE AIRLINES...

DOSAir: All the passengers go out onto the runway, grab hold of the plane, push it until it gets in the air, hop on, jump off when it hits the ground again. Then they grab the plane again, push it back into the air, hop on, etc.

Mac Airways: The cashiers, flight attendants and pilots all look the same, feel the same and act the same. When asked questions about the flight, they reply that you don't want to know, don't need to know, and would you please return to your seat and watch the movie.

Windows Airlines: The terminal is neat and clean, the attendants all attractive, the pilots capable. The fleet of Learjets the carrier operates is immense. Your jet takes off without a hitch, pushing above the clouds, and at 20,000 feet it explodes without warning.

OS/2 Skyways: The terminal is almost empty, with only a few

prospective passengers milling about. The announcer says that their flight has just departed, wishes them a good flight, although there are no planes on the runway. Airline personnel walk around, apologizing profusely to customers in hushed voices, pointing from time to time to the sleek, powerful jets outside the terminal on the field. They tell each passenger how good the real flight will be on these new jets and how much safer it will be than Windows Airlines, but that they will have to wait a little longer for the technicians to finish the flight systems. Maybe until mid-1995. Maybe longer.

Fly Windows NT: All the passengers carry their seats out onto the tarmac, placing the chairs in the outline of a plane. They all sit down, flap their arms and make jet swooshing sounds as if they are flying.

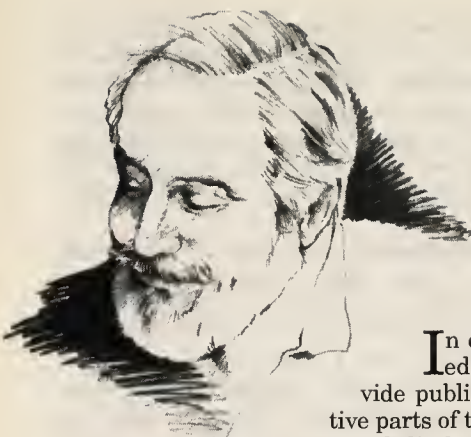
Unix Express: All passenger bring a piece of the airplane and a box of tools with them to the airport. They gather on the tarmac, arguing constantly about what kind of plane they want to

build and how to put it together. Eventually, the passengers split into groups and build several different aircraft, but give them all the same name. Some passengers actually reach their destinations. All passengers believe they got there. ♦

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GOVERNMENT ACCESS

by Jim Warren

GRABBING GOVERNMENTS GONADS – PART 2 OF 2

In our last exciting episode, I provided a general outline of how to provide public access to one of the most sensitive parts of the political anatomy - the required financial disclosures by candidates, incumbents, senior bureaucrats and lobbyists. This installment provides the techno-details of the process by which required political disclosures can- and should - be made available in modern (computerized) form.

Copy both parts to your local Registrar of Voters, your state Secretary of State and to your elected legislators - with your advocacy that they do it, and do it NOW!

1. THE FILER AND DATA ORIGATION

Note: Files are made up of information components called "records." The sub-components of records are called "fields." For these purposes, fields are composed of alpha-numeric characters and punctuation symbols. The characters and symbols are represented in computerized form, usually encoded in ASCII - the American Standard Code for Information Interchange - with one "byte" of data encoding one character of information.

The agency that receives the required disclosures should make available to each party that is required or permitted to file disclosures in computerized form optional data-entry programs for (a) Macintoshes, (b) DOS-based PCs and (c) Microsoft Windows™ based computers that permit users to:

- Keyboard-enter all data required to be disclosed in each type of required disclosure (candidates, independent campaign committees, incumbent economic interest statement, lobbyist statement, etc.),
- Store all information that is entered on the data-entry computers hard-disk and/or on a floppy diskette chosen by the user
- Display, print, review, edit, modify, correct and erase any logical part of the information that has been stored
- Compute any required [1] summary records of information, and re-compute them upon any changes
- Update any required [1] cumulative information from previous disclosures using electronic their copies, and re-update it upon any changes
- Create a separate copy of the data-file that contains the complete set of required information ready for filing with the agency
- Compute a "message digest" associated with the data-file (more later)

- Print the message digest along with such affidavits as may be required by law, for the filer to sign

[1] There is no logical reason to submit computed summaries since they can be computed from the raw data whenever a user of the information wants them. However, law-makers probably won't feel comfortable with not requiring totals, etc., for another decade or so.

The data-file for the agency will be a sequence of records, that are composed of fields, that are composed of ASCII characters, that are stored in a format defined by an agency authorized to issue such specifications (e.g., state Secretary of State, state political practices commission, county Registrar of Voters, etc. - with competent technical advice, of course). The filer will submit the data-file on a diskette or transfer it online in the specified format.

Alternative data-entry programs: Of course, each data-entry program may optionally perform other functions that are convenient or useful for the filer.

It is expected that numerous other freeware and fee-ware computer programs will be created by public-spirited programmers and energetic entrepreneurs, providing numerous support services for political campaigns and in the process, producing the required data-files in the required formats.

Reference data: For use by the data-entry program when presenting queries to the user and receiving, verifying and storing the user's responses - the agency should provide digital reference files on diskette in standard ASCII, upon request.

For each type of disclosure (statement of organization, campaign committee disclosure, late contribution report, etc.), its reference file should include:

- Name of the type of disclosure
- Name of each type of record of each disclosure (e.g., period covered by the statement, candidate information, contributor, amount received, expenditure made, etc.)
- Natural-language name for each field in each type of record
- Whether the record is mandatory or optional
- Whether the record can be repeated.

For each field in each type of record, the reference files should include:

- Name of the field

Jim Warren, 1995.
May be copied-in-full at any time, in any form, provided this notice is included and no fee is charged for the specific copy nor for a paper publication of which it is a part.

Warren [345 Swett Rd., Woodside CA 94062; e-mail: //jwarren@well.com] received the Hugh M. Hefner First-Amendment Award from the Playboy Foundation (1994), and the James Madison Freedom-of-Information Award from the Society of Professional Journalists - Northern California (1994) for his efforts to open online access to government. He received the Electronic Frontier Foundation's Pioneer Award in its first year (1992); founded InfoWorld and the Computers, Freedom & Privacy conferences (1991); as founding host of PBS television's "Computer Chronicles" (1981) and founding Editor of Dr. Dobbs' Journal of Computing (1976).

- Description of, and instructions about, the field
- Type of the field (alphabetic, alphanumeric, integer, decimal numeric, dollar amount, etc.)
- Limits, if any, on data entered in the field (length, numeric, range of values, etc.)
- Whether the field is mandatory or optional
- Whether the field can be repeated
- Whether the field is a summary (if politicians insist that they must still be submitted), and if so, of what
- Whether the field is cumulative from previous filing-period's disclosures forward to the next filing-period's disclosure, and if so, of what from what previous file(s),
- Format information for displaying and printing of the information in the field.

The Message digest: To guarantee the integrity of the data-file that is submitted, and allow anyone to re-verify the continuing integrity of any copy, the filer should compute and submit a "message digest" string for each data-file as the last step before submitting it to the receiving agency. A message digest is a long sequence of characters that is created by a message digest program that reads every character of the entire data-file and computes the message digest string in such a way that any change in any bit in any byte in any field in any record will result in a significantly different digest string.

For example, a message digest is unique for any given content of any given data-file. There are several standard message digest routines in international use for such purposes. (Rivest's MD5 is one of the more popular ones.)

The computation of the message digest can be done as a final part of the data-entry program, or can be done by a separate digest program.

Legal beagles will probably continue to want the filer to declare all sorts of things under penalties of perjury, and sign it in the traditional hand-written form. A single page with the required declarations and signature line can be used. It should include the message digest string that the user has had the computer create, and declare that the data-file with that message digest is, in fact, the filer's official and truthful disclosure.

(In a decade or two, legislators and attorneys will become accustomed to "digital signatures"—which are entirely different from digitized signatures—that can provide much reliable authentication of authorship. But that's a different techno-swamp.)

2. SUBMITTING THE DISCLOSURES

The data-file to be disclosed may be submitted to the agency on diskette, along with the one-page signed affidavit with the matching message digest.

Alternatively, the data-file may be "tele-filed"—transmitted to the agency by computer modem, with the signed affidavit faxed to the agency and the original mailed in a timely manner if originals are required by law.

Prohibit "duplicate" paper and digital filings! Filing of what are proposed to be identical disclosures in both paper and computerized forms should not only not be required; it should not even be permitted.

Allowing this would leave the filing agency in the position of holding two copies of a single disclosure, that are in entirely different physical forms. This provides a rich opportunity for accidental or intentional inconsistencies—as well as being costly and wasteful duplication.

Upon receipt of a disclosure data-file, the filing agency should promptly:

1. Record appropriate information about the submitted data-file in the agency's secure computer system, including the declared message digest.
2. Re-compute the message digest of the data-file that was submitted and compare it to the message digest that appears on the signed affidavit, thereby verifying that (1) the entire file is readable by the agency computer, and (2) verifying that it matches the same sequence of the same characters of information as the filer used in computing the original message digest.
3. Have a computer program examine all of the information in the data-file to verify that it is in the format required for computerized submissions, and print a report of any errors and omissions that it identifies.
4. If required by law, verify that the hand-written signature on the accompanying affidavit is of an authorized representative of the filer.
5. Print two identical copies of a receipt that includes the verified message digest and a copy of the report of any

errors and omissions or a declaration that none were noted.

6. Have an authorized representative of the filing agency sign and hand-date both copies, delivering one copy to the filer as a receipt while filing the other executed copy in the agency's secure paper archives.

Upon conclusion of this process, the agency will have officially accepted the filing of a computerized disclosure.

3. COPYING THE FILES

Protecting their Integrity

Once a filing has been accepted, the agency will:

1. Make computer copies of the original data-file for use on various public-access systems, re-computing and re-verifying the message digest for each copy (all of which can be automated).
2. Store one or more of those verified copies as permanent archives, including off-site copies, using appropriate security measures to protect against damage or loss.
3. Periodically and automatically re-verify that the archive and agency's public-access copies remain readable and uncorrupted using the message digest, perhaps on a monthly basis during the filing year and a yearly basis during the remainder of their retention by the agency.

4. PROVIDING PUBLIC ACCESS

Copies of the files used on public-access computers within the agency should be write-locked under appropriate security controls to protect them against accidental or intentional corruption or erasure, in addition to having their message digest periodically re-verified.

On-site public viewing: The public may use lobby computer terminals running protected computer programs to search and otherwise process, summarize and extract desired information from each computerized disclosure that is on file, for on-site viewing without cost. This should provide at least as much information as is currently provided on the old-fashioned paper files—when they can be found, when they're not misfiled, when they're not mutilated by previous users.

Self-service paper copies: The public may command those same lobby terminals to print logical parts of, or the entirety of, such computerized disclosures.

Regarding possible printing fees, the agency should review whether it is more costly in staff time and resources to attempt to monitor such printing and collect pennies per page, or whether it may be less expensive to simply permit users to do their own printing and walk out with the results without incurring the expense and disruption on both sides of staff distraction, billing, collection, accounting and auditing.

Semi-self-service digital copies: Under staff oversight and using computer diskettes certified by, or otherwise satisfactory to agency staff, logical parts of, and complete copies of, recipient-requested data-files can be copied in digital form onto diskettes for hand or postal delivery to the requesting party.

This should be under staff control to (1) avoid possible use of faulty diskette media, (2) avoid possible "infection" of agency computers with computer "viruses" from diskettes of unknown origin and integrity (the latter being more of a problem for Macintoshes than for PCs) and (3) in the case of copies of complete data-files, assure that the message digest is re-computed on the diskette copy after the copy has been made, to verify that the copy is complete and accurate.

A copy of the original ASCII-coded reference file that describes the data-file should be offered with each data-file digital copy or excerpt, as should a program that computes the message digest (and also the actual message digest for the copied data-file when complete data-files are copied).

Mail and phone-order services: If the agency decides to offer such optional services - presumably for a reasonable service fee - agency staff can use exactly the same computer programs to print records and make diskettes upon telephone or written request, and deliver them to distant recipients.

Remote access via cooperating agencies: At the same time that the agency places copies of each certified data-file on its in-house computers for public access, it should also transmit copies to other state and local agencies and organizations that are cooperating in providing public access - e.g., the state legislature's computer center (be assured: legislators and their staff will be major users of such data!), adequately-equipped local Registrars of Voters, public libraries and university libraries, college and university computer centers, local community nets and local-government civic nets, etc.

Each cooperating agency should be offered copies of all related computer

programs, notably including the message digest programs, and each agency should be encouraged to periodically re-verify the integrity of their data-file copies to protect against accidental or intentional data corruption.

Remote access via the Internet: Because the nonprofit, nonproprietary, global Internet is the largest and most-accessible public computer network, the filing agency should contract with an Internet host-computer site that is willing to receive all data-files that the agency uploads to it, store them as read-only files in their public file libraries, protect and re-verify their continuing integrity and permit anonymous access on a first-come, first-served basis, without charge to recipients and preferably without charge to the originating agency. (Numerous Internet host operations often do this kind of thing as a pro bono public service.)

The agency should periodically download copies of such files and independently re-verify their continuing integrity. (For that matter, so should candidates and campaign managers, but that's their problem.)

Encourage value-added services: Under no circumstances should the filing agency restrict or prohibit unlimited accurate re-copying and re-distribution of these data-files and any and all excerpts therefrom, for public information and election-related purposes, especially including for-free and for-fee value-added services based on those data-files. This will encourage wide distribution and enhance public access and utility.

5. AVOIDING INAPPROPRIATE USE OF DISCLOSED DATA

There is always a conflict between the protection of citizens' personal privacy (and corporations' confidentiality), versus the public's need to know private and confidential information that impacts the public. This continues to be a major conflict regarding political processes and campaign finances.

The filing agency and state law and regulations should facilitate deterrents against improper use of required political disclosures - i.e., deter their use for purposes not related to politics or elections. The most obvious method is to use the mainstay of direct-mail list-owners who rent their lists for limited use - they "seed" each list with unique name and address variations for cooperating addressees.

Filers might be permitted to include unique information in their disclosures, that is inconsequential but can be used

to identify when the data is used by others, primarily for direct-mail communications and solicitations. Then they could know when their disclosures are being improperly used.

For instance, filers might be permitted to append unique middle initials, apartment number suffixes or "mail-stops" for the addresses of cooperating contributors and service vendors. The filers should confidentially identify such unique encoding to the enforcement office of the filing agency at the time they submit their disclosures, thus offering enforcement officials independent evidence in the event of alleged inappropriate use.

Similarly, the filing agency might add its own unique and inconsequential information to each data-file, to the extent that it can do so and find cooperating parties who will report identified uses back to the agency.

Yes, this is highly controversial regarding official records that must be accurate.

CALIFORNIA STUDY

Per a 1994 state law, the California Secretary of State has set up an Electronic Filings Advisory Panel that is studying how best to implement filing and public access for computerized political disclosures. Secretary of State Bill Jones is mandated to report his recommendations to the legislature by the end of 1995.

There is "legislation in waiting" that has already been introduced (by Assembly Member Conroy [R] and state Senator Hayden [D]), that can be amended to reflect the recommendations. Thereafter, it will be up to the public - especially online citizens - to push like hell to make sure 1996, to become effective in 1997, mandates computerized filings and public access for "serious" candidates and campaigns - probably those that exceed \$30,000 income or expenditures per year. (Yes, it'd be nice for it to impact the '96 state elections, but it ain't gonna happen.)

The proposals in this column and its Part 1 have been essentially presented to the Panel and Secretary of State's staff (but without much of the inflammatory rhetoric); I'm one of about 20 members of the Panel. I walk it like I talk it - and encourage you to do the same. ♦



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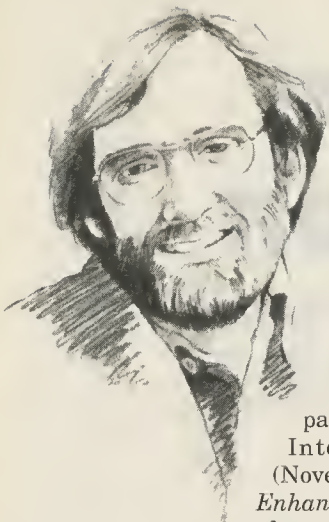
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EDUCATION LINK

by Rea Andrew Redd

"DR. STRANGENET OR HOW I LEARNED TO STOP WORRYING AND LOVE THE BOMB"

Worth noting is an article by Crawford Killian that has appeared twice in the past several months, "Why Teachers Fear the Internet" appeared in *Internet World* (November/December, 1994) and was reprinted in *Enhance* (Spring, 1995). Killian cites technological, pedagogical, and psychological sources of resistance to the Internet among educators. In graphic anecdotes, Killian shows how the best laid curriculum plans can go astray. As a writing mentor for students in rural and small town schools in British Columbia, Killian deals with students who have limited access to the 'Net and with sometimes overworked, sometimes unimaginative and sometimes unfamiliar faculty. When it did work successfully with a handful of students it became clear, in one instance, "the on-line connection was saving a 'problem child' who was too bright or factious for the local school."

Killian presents apt comments on the subversive aspects of the Internet's impact upon the established system of public education. Teachers' need for control is largely a function of the industrial model school; as the culture changes, the models of the culture will change. It is the Internet that will propel the student-defined curriculum and which will eventually cast aside present education systems. "The Internet-based school . . . will develop a different culture and recruit a very different kind of teacher. The function of the online educator will be to save students from wasting time . . . and get students out of the academic nest as quickly as possible," speculates Killian.

In a sidebar to the *Enhance* article, a graph reporting the time-tests of teachers using the Internet appears. The research question was: with so little time to use computers at school, how are teachers and students to effectively use the Internet? The test was one hour in length and given to both teachers and students. The task was to sign-on, gather more information, compile it, and use it to construct a lesson plan or report. The results are as follows:

- 4 minutes—Connecting to the Internet
- 37 minutes—Searching for information
- 9 minutes—Compiling information
- 10 minutes—Using information in lesson plan/report

The results should force us to find ways to shorten the search time and expand the teaching time. May I submit for your consideration, from the WEB zone, YAHOO! But first, write to Crawford Killian at e-mail://ckilian@cln.etc.bc.ca and give him your comments and insights to the public schools' predicament in the information age. Then

call the editors of *Enhance* at (800)777-3642 for a free copy of the Spring, 1995 issue in which Killian's article appears.

BRUSH OFF THE (COB)WEBS!

Yes, it is July, but one part of your brain is still replaying the best lessons you taught students last school year. You might now be at the beach, in the mountains, or in summer school working on graduate credits. Your mind is winnowing the successes from the failures of the 1994-1995 school year. With evaluation comes the need for new ideas. You may think about going to your district's professional library and browsing the stacks. Could we ever do this on the Internet without devouring a whole day or running up the phone bill with connect time? How could we shave, in the time test mentioned above, those 37 minutes to about 20 minutes?

About 200,000 people a day use a World Wide Web (WWW) search engine to gather new ideas. YAHOO! - <http://www.yahoo.com> - will help you constructively browse the 'Net and keep track of Web sites. Presenting about 38,000 linked sites, YAHOO! ("Yet Another Hierarchically Official Oracle") maximizes the Web's click-and-you-are-there format.

After you have whetted your students' electronic appetites, challenge them to become Web publishers. It's likely that this idea will work best as a portfolio-based task. The student team doesn't have to be successful as a publisher; but in the effort, the students will be able write an objective, establish a procedure, and test the procedure for establishing a special online service. A student team would focus upon business proposal writing, financing, electronic graphics design and database construction. Apple's Richard Gingras estimates that only a little more than 60% of electronic publishing is done by what we would call professional publishers. Microsoft's Bill Miller sees new forums starting up with a minimum of \$10,000 per year investment, primarily for graphics and production.

Alex Hempton and Suzy Klein, both California middle schoolers, created Youth Central on Apple's eWorld in a matter of months. Contact your online service for the format in which they receive proposals for new forums:

• Prodigy: Bill Day, director of Internet Services, (914)448-2474

• CompuServe: Proposal Administrator, P. O. Box 20212, Columbus, Ohio 43220

Rea Andrew Redd lives and works in southwestern Pennsylvania where he manages a high school library, teaches European history and Scholastic Achievement Test preparation. On occasion, he reenacts American Civil War battles with the Ninth Pennsylvania Reserves, an historic, military impression unit.
E-mail Rea at: reda@genesis.duq.edu

• Microsoft Network: (800)467-6329 for a faxed copy or email: //MSNinfo@microsoft.com

• America Online: e-mail to Greenhouse@aol.com

• eWorld: (800)775-4556

• GENie: GENie Marketing, 402 North Washington St., Rockville, MD 20850

THE FUTURE AND HOW TO GET THERE

Channel One, a middle/high school news and features television network, makes available *Teacher's Guide*, a monthly program and issues magazine. Having begun in March 1990, Channel One News and the Classroom Channel, is being viewed in over 12,000 public and private schools. In a recent edition of the guide, Steve Cisler, senior scientist at the Apple Library of Tomorrow, was interviewed. Cisler, a public-interest advocate and network developer, is concerned with helping regional communities keep a neighborly attitude toward each other. "Think globally, act locally" is a current phrase which gives us an idea of his Internet activities. As a vocal member of a citizen's committee which advises Silicon Valley schools and as a spouse of a second grade teacher, Cisler talked with Channel One's David Doty:

"The main challenge . . . is for teachers to find a way to integrate themselves into the process of learning about (technology)," Cisler states. Fears of mastering networked information and worries of job security in the age of distance-learning technologies are standing in the way of learning mediators embracing computers in education.

The necessary sacrifice of what little free time teachers have available is essential, Cisler feels. "Will administrators give release time to teachers who are unable or unwilling to use their own time? Even the schools in the Silicon Valley have incredible problems on this front. Sometimes administrators aren't willing, and sometimes they don't have the funds," he reports from his firsthand experience as a technology advocate in a local school district.

"Any projects to wire schools must include enough money for training, not just for the network connection and the hardware. A minimum of 30 percent of the budget, I think, should go to ongoing training, because the network and the technologies change so rapidly," Cisler recommends. He then cautions

that "this is not a one-time learning experience, like learning how to use a filmstrip projector or other static technology. Most of the projects don't have enough funds set aside for training educators, and that has to change."

Turning his attention to the Internet, Cisler likes the NYSErNet gopher (nysert.org) primarily for the Empire Schoolhouse, which includes K-12 material gathered from the depth and breadth of the Internet. Also, Cisler sees as essential the Global Schoolhouse, sponsored by the Global School Net Foundation, a not-for-profit segment of the National Science Foundation. "Up to eight networked schools share information online via video and audio in real time . . . (and) since video on the Internet is still in its infancy, it isn't practical for most schools to get involved in this particular project." Participating schools need a T1 line, but still "with less expensive equipment schools can be doing limited video online," states Cisler. How so?

Cisler suggests CU-SeeMe, video conferencing software developed by Cornell University which "can be downloaded from the Internet for free" via the World Wide Web at <http://cu-seeme.cornell.edu/>. Cisler sees video conferencing opening up with ISDN software and QuickTime Conferencing software from Apple. David Doty, the Channel One interviewer, notes that the electronic mailing list for the Global Schoolhouse's activities is andreyv@cerf.net or call (619)433-3413.

Cisler directs schools to their state department of education "to see what, if any, school network is being promoted... Texas, Virginia, California, and a number of other states have very ambitious programs to hook up teachers and librarians, principals and coaches, and sometimes students and faculty."

And the next step? Cisler suggests *Everyone's Guide to the Internet for Macintosh Users* from the Apple Library Users Group; as of now, The Apple Library of Tomorrow doesn't have a DOS or Windows disk available. DOS and Windows users will have to go to a bookstore that regularly stocks several of the many guides available. Cisler says the best method which a teacher can use to integrate computers into the curriculum is "to pick a project to which a computer can add value. Collaboration is ... an important value." In Michigan, weather information management is being conducted by the

University of Michigan, which has developed software by which students can input their own data. Graphs, weather modeling, entries and their effect on data are skills taught when weather and computer networks combine," Cisler reports.

And the politics of technology in the classroom? "Vice-President Al Gore . . . has tried . . . to gently twist the arm of industry to get it to agree to help connect schools," Cisler mentions. He goes on to more specifically state that "many (federal) agencies that were doing defense work are now trying to reach out and do good things for the public, like to get schools online. I call it the swords-into-joysticks strategy. Over the past three years, federal agencies have been redefining the roles they'll play.

"Many, whether they're the Department of Agriculture or the Department of Defense, have looked to K-1 as a way of being perceived as valuable. Even defense-research labs are working with K-12 schools."

HOW THEN SHALL WE LIVE?

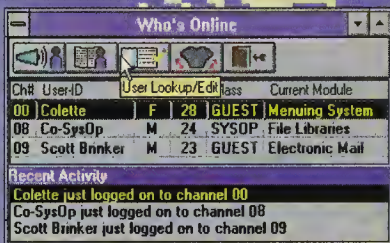
If we follow Killian's line of thought, we come to the conclusion that the Internet may subvert the establishment, our employers. As schools gain access to the 'Net, they may be swallowed by it. Is the day coming when students and teachers will not go to the school building? Will it be in our lifetime? Will the Internet cost me a job? As the WWW bears its amazing fruit, those who have access may not go to the traditional school building or the traditional American education. And yet, having worked in an intercity elementary school, I know that the traditional school is not going to be a dinosaur.

If I gave advice to any college freshman education major, it would be to learn the best of both worlds. Those worlds are the classroom-bound school and the technology-bound school. Be prepared to teach math and reading recovery curriculums to disadvantaged students; be prepared to electronically equip self-learners. Learn how to bring parents of both types of students into a relationship with educators. Learn how to find funds for your classrooms. Most importantly (and to paraphrase a Reagan-era expression): You are responsible for your own education. ♦

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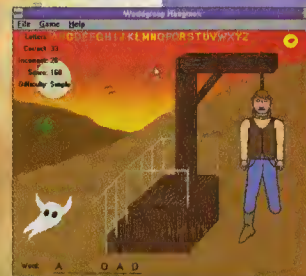


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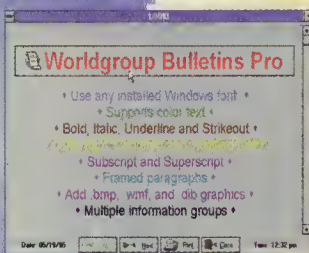
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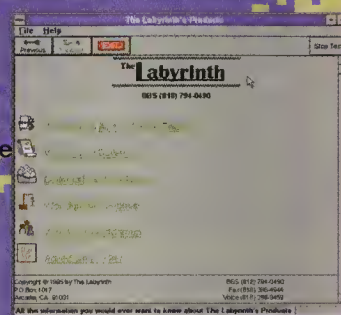


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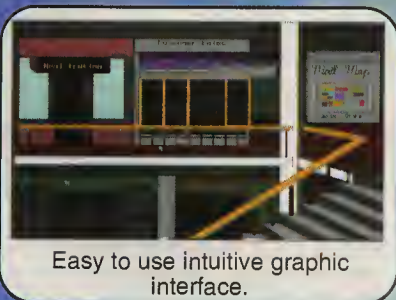
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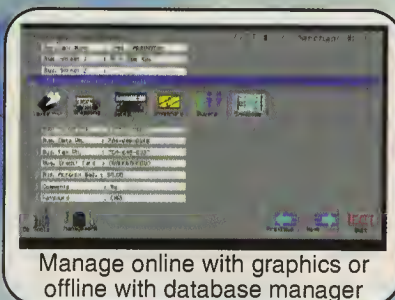
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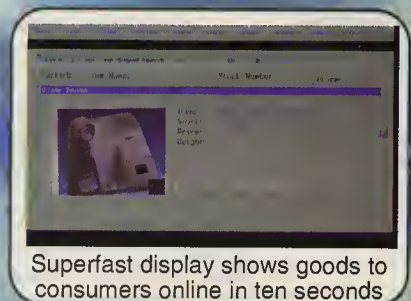
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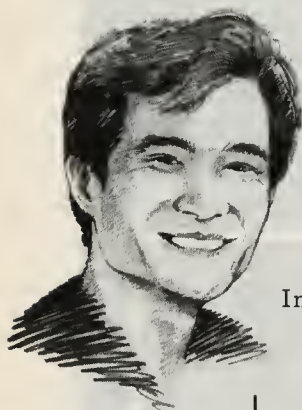
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Wallace Wang is the author of *CompuServe for Dummies*, *Procomm Plus for Dummies* and *Visual Basic for Dummies* (all published by IDG Books). He also does stand-up comedy in the San Diego area, and has appeared on A&E's *Evening at the Improv* TV comedy club. He can be reached via e-mail: //70334.3671 @compuserve.com.

The newest version of **MacCIM** (version 2.4.2) is now available for Macintosh users. If you haven't gotten your free copy of MacCIM with your monthly CompuServe magazine, use the **GO MACCIM** keyword and grab a copy yourself. Downloading MacCIM won't cost you a thing although it may tie up your phone line for quite a while.

Essentially, this newest version of MacCIM adds an Internet icon for one-click access to the Internet, a notice that lets you know whether you're in a free Basic service or a pay-by-the-minute Extended service of CompuServe, and an updated help file which CompuServe hopes will answer your questions so you don't have to call and bother them when MacCIM acts strangely. In addition to these cosmetic changes, MacCIM 2.4.2 also fixes numerous bugs that plagued the earlier versions of MacCIM.

So if you just want a prettier version of MacCIM or if you're tired of MacCIM crashing on you way too often, try the new MacCIM 2.4.2. Since it's free, you have nothing to lose by trying it. Either that, or you can dump your Macintosh altogether and switch to WinCIM 1.4 running on a Windows machine, which is as appealing to most Macintosh users as eating raw spinach is to young children.

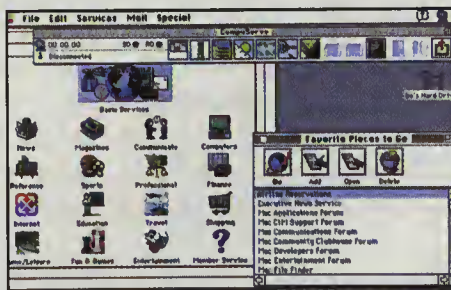
MAC SYSTEM SOFTWARE 7.5 UPDATE

For Mac users who absolutely must have the latest operating system running on their computers, you'll be pleased to note that Apple has released Macintosh **System Software 7.5 Update 1.0** files for the follow-

ing countries: B-British, CA-Catalan, DK-Danish, E-Spanish, F-French, D-German, T-Italian, K-Finish, S-Swedish, AB-Arab, and Z-International.

Update 1.0 is a set of software enhancements that improves the performance and reliability of Macintosh computers running System Software 7.5. This update features Launcher, system extensions, control panels, and applications along with solutions for working around bugs encountered by some Macintosh computer users.

To grab a copy of System Software 7.5 Update 1.0 file, visit the Apple Most Popular Software Updates library by using the **GO APLNEW** command. Look for the System 7.5 Update 1.0 Disk and Network Install files for the United States, as well as QuickDraw GX 1.1.2 Disk and Network Install files, in the "US Software" directory. If you want the Update 1.0 file for other countries, look in the "Worldwide Software" directory.



Downloading any files in the Apple Most Popular Software Updates forum carry no surcharges, although you'll still have to pay all connect-time charges for the privilege. (For those of you belonging to the Standard Pricing Plan, that works out to be **\$4.80** per hour.)

THE MICROSOFT WORD VIEWER

To complete their plan for world domination, Microsoft has unleashed a double salvo at rivals WordPerfect and Ami Pro (soon to be called Word Pro by Lotus and "Huh?" by the rest of the market). After nearly a decade of selling word processors for personal computers, Microsoft finally got the bright idea that not everyone in the world wants to use Microsoft Word, but plenty of people have Microsoft Word documents that they need to share with everyone else.

In the past, companies like Microsoft simply hoped that everyone would switch to their word processor to avoid messy file conversions that most people don't know how to do or don't even know exists. Rather than force the whole world to switch to Microsoft Word, Microsoft has released a freeware **Microsoft Word Viewer** program.

This viewer program lets others view and print (but not edit) any Microsoft Word document, including those created by any version of Word for Windows or Word for the Macintosh (versions 4.0 or later). Besides insuring that some idiot can't change your documents by mistake, Microsoft Word Viewer brings Word one step closer to letting you create and distribute electronic documents directly like Adobe Acrobat. So save a tree and help Bill Gates plaster the globe with Microsoft software by downloading a free copy of the Microsoft Word Viewer program. Just use the **GO MSWORD** command and look for the **WORDVU.EXE** file (1,235,838 bytes) in Library 2.

Although the complete Word Viewer program gobbles up 3 Mb of hard disk space, you can distribute the basic viewer program on a single 1.44Mb floppy disk. Perhaps if Word Viewer proves popular, we can one day hope for a version of Microsoft Word that creates executable documents that can run under a variety of operating systems including Windows and the Macintosh.

By making Word documents as portable as possible, Microsoft hopes that people will freely share fully formatted Word documents (instead of dull ASCII files) across the Internet. Of course, the more this proves popular, the more people will gravitate towards using Microsoft Word to the exclusion of any other word processor.

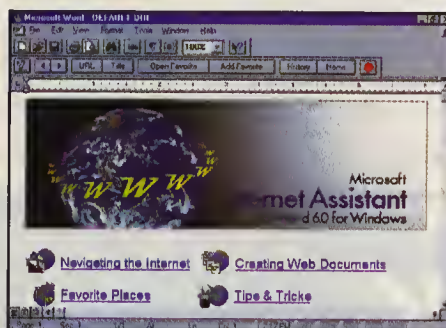
THE MICROSOFT WORD INTERNET ASSISTANT

To tighten their grip on the burgeoning Internet market, Microsoft isn't content just to let Microsoft Word become an electronic document creator. In addition, Microsoft has released a freeware **Internet Assistant** add-on that turns Microsoft Word into a HyperText Markup Language (HTML) editor as well. (Just make sure you have either the English, French, or German version 6.0a of Microsoft Word for Windows. The Internet Assistant does not support Word for Windows NT.)

For anyone intrigued by the explosive growth of the World Wide Web (WWW)

and wanting to set up their own web site, you already know the difficulties in creating pleasant, eye-catching web pages using the strangely cryptic HTML. Besides trying to create the necessary text and graphics, you also have to use the correct HTML commands to format your web page properly. Such twin headaches practically insure that only the most stubborn (or masochistic) users will create their own web pages.

But if you use the Word Internet Assistant, you can create a web page as easily as creating a Word document. Just create and format your Word document like normal text. Then instead of saving the file as a Word document, the Internet Assistant lets you save it directly as a HTML file. Now any browser (such as Mosaic or Netscape) can view your HTML document as if you had spent countless hours creating the HTML page by hand. (All documents created by Word can be viewed by browsers that support level 2.0 HTML.)



Of course, the Internet Assistant isn't perfect, but it does greatly simplify HTML web page creation. That gives you a choice of using it instead of creating web pages by hand, or as a tool for creating a web page that you can modify later.

Besides letting you create HTML files, the Word Internet Assistant also turns Word into a simple web browser. While not as fancy as dedicated web browsers like Mosaic or Netscape, you might find the Internet Assistant useful anyway if you're already familiar with Microsoft Word's interface, or you're just too cheap to buy anything else.

For a free copy of the Internet Assistant, use the **GO MSWORD** command and download the **WORDIA.EXE** file (1,120,361 bytes) from Library 2.

MOVIE MANIA

Movies are one of the most popular forms of entertainment everywhere around the world. Ask anyone who

their favorite movie, actor, actress, or director may be and you're sure to spark a heated discussion (which may turn into a heated argument or fist fight if you're not careful).

For those movie maniacs who relish the idea of renting everything in a video store and watching movies until the utility company shuts off their electricity for non-payment, visit the All-Movie Guide (**GO ALLMOVIE**). Here you can search movies by: actor/actress (so you can find out all the movies that Ronald Reagan appeared in), movie title (did someone actually think that *Amazon Women in the Avocado Jungle of Death* would be a hit?), rating (five stars all the way down to "Do you really want to waste your money renting this sucker?"), category (children, documentary, feature film, or TV), producer/director, and genre.

Although not perfect or complete, the All-Movie Guide can help you find that elusive movie that you saw years ago and loved, but can't remember a thing about it. Once you get done browsing through reviews about past movies, you might like to know what's happening in Hollywood right now, so visit *Premiere* magazine online (**GO PREMIERE**).

Premiere online provides the complete text from the magazine along with polls (so you can express your likes or dislikes about the latest releases), film clips from the latest releases (most likely from the ones that you didn't like to see when you paid \$7 to see it in the first place), shop for Hollywood souvenirs (get a Judge Dredd T-shirt for your mom), and even a guide to help you find all the movies that your favorite stars have appeared in. Lassie has appeared in ten movies since 1943 including "Lassie Come Home," "Courage of Lassie," "Challenge to Lassie," and "The Magic of Lassie." According to the *Premiere* guide though, Benji hasn't appeared in anything.



THE ISDN FORUM

ISDN (Integrated Services Digital Network) has been getting tons of publicity lately as everyone prays that it

will be the next revolutionary advance from copper wire and plain phone lines that still can't reliably transfer data at high speeds, especially in foreign countries. If you're one of the lucky ones with an ISDN link, or if you just want to know more about the pros and cons (such as the cost and the maddening lack of information about it), then visit the ISDN forum (**GO ISDN**)

Here you can learn just what the heck ISDN can offer your business, what type of equipment you may need, and read actual applications and experiences from the first ISDN pioneers in the industry. Nearly all the major ISDN services have sections in this forum too, including AmeriTech, Bell Atlantic, Bell South, GTE, PacBell, US West, and NYNEX.

Originally started as part of the Telecommunications forum (**GO TELECOM**), the ISDN section grew so rapidly that they decided that running their own forum was the only way to keep up with demand. So if you're looking for ISDN information, look here first. Once you get ISDN service for yourself, leave a message in the ISDN forum and tell everyone else about it too. If we're lucky, we'll all have reliable phone service anywhere in the world. Then again, the chances of

that happening seems as likely as having worldwide peace as well.

SAFE ONLINE CRUISING

The latest trend these days is for schools to set up ancient computers in the classroom to teach children computer literacy. That's not working out, though, because the kids are having trouble showing their teachers how to use computers.

But while children have no qualms about cruising through the intricacies of computers and online services, parents are discovering that the online world can be just as seedy and terrifying as the downtown centers of most major American cities. To ease the fears of parents and to give them a guide for teaching their children about safe online cruising, download a new brochure developed by the U.S. **National Center for Missing & Exploited Children** with the cooperation of the major online services

This brochure is part of an awareness program aimed at parents and children and includes "My Rules for Online Safety." With the increase of personal computers in homes and an increasing number of schools going online, more children are logging on to commercial

services, private bulletin boards, and the Internet. For parents worried that their children might stumble across something less than desirable (for the parents, not the kids), the "My Rules for Online Safety" brochure explains what children might find online (sexually explicit digitized photographs, adult-content chat rooms, sexual perverts asking for information, etc.), how parents can block access to certain areas, and what children should do if they run into an uncomfortable situation (hang up the modem as a last resort).

The brochure is stored in the **CHISAF.TXT** file in the New Member Forum's "General Information" library (**GO NEWMEMBER**) and in the Missing Children's Forum's "Forum Information" library (**GO MISSING**). Both forums are part of CompuServe's basic services, so you won't be charged extra for accessing or downloading the file.

While this brochure can help protect your kids from seeing or reading undesirable information, you'll still have to worry about your children seeing the same (or worse) information on TV every day. After all, does anyone pretend to watch "Baywatch" just to learn proper lifeguard rescue procedures? ♦

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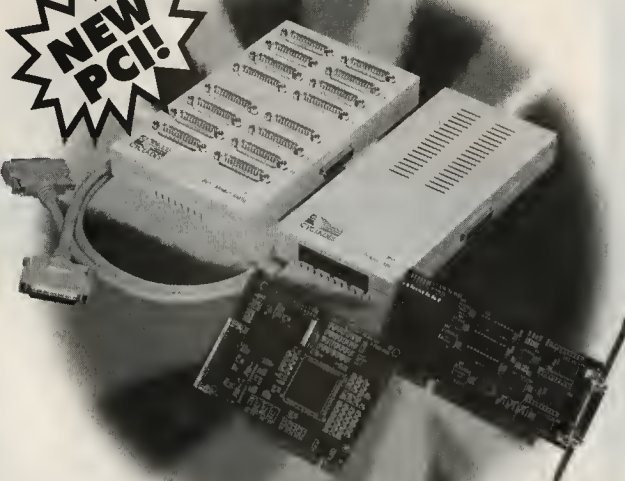
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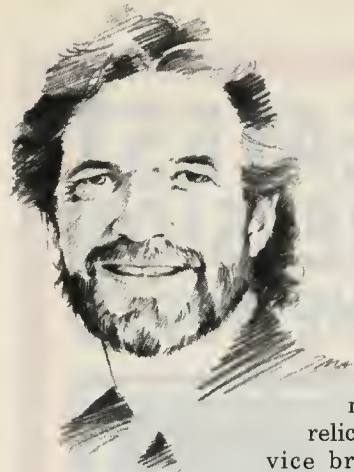
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PRODIGY

by Ric Manning

FINALLY, A REAL WINDOWS MAIL MANAGER!

Prodigy has been running under Windows for years, yet its mail manager has always been an awkward relic from Prodigy's past. Last year the service brought out a customized version of ConnectSoft's mail manager, but it required members to be offline to do any real work.

Now this summer Prodigy has finally created a true Windows mail manager. *Prodigy Mail for Windows* is no Eudora, but it's as robust as CompuServe's mailer and far more flexible than America Online's mail system.

Once you install the upgraded version, the old Prodigy mailer disappears. Now when you hit the mail icon, you get a scrollable upper window showing the contents of your mailbox and a lower window that displays

The system also supports attachments and lets you preview an attachment before you send the message. Eventually, Prodigy will let you use the attachment option to transmit photos and sound files. Other enhancements that may arrive this summer include sig files and the ability to switch out of Prodigy while you're uploading or downloading files.

RECONSTRUCTIVE SURGERY

The Prodigy makeover that will eventually integrate the service into the World Wide Web started this summer with the arrival of New Prodigy. The facelift incorporates more Windows functions including scrolling text boxes, tool bars and a smoother pathway to the Web. New Prodigy incorporates some of the features of the P2 interface that Prodigy previewed early this year, but in a package that can run on a PC with 4 megabytes of RAM.

Features included in New Prodigy include: a JUMP window that can accept URL's, USENET Newsgroups, FTP sites and Gopher sites; a Hot List instead of a Path List that includes Prodigy JUMP words, sites from the Web browser's Hot List and a user's list of subscribed Newsgroups; and a redesigned log off window.

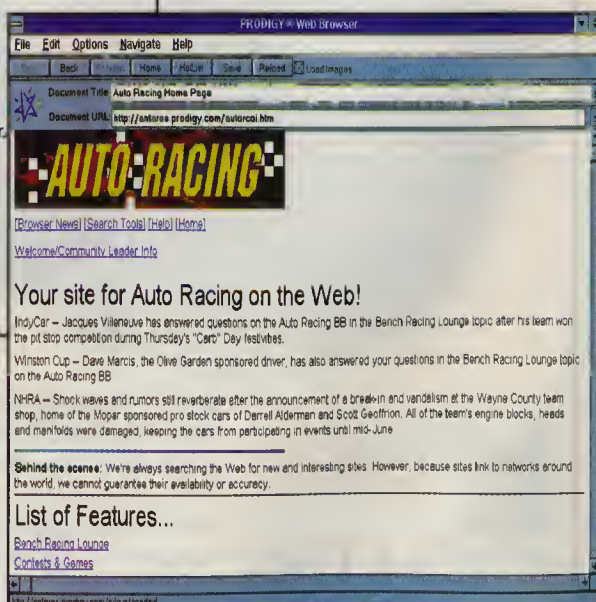
CREATING COMMUNITIES

With all of the consumer online services stampeding to the Internet, it's fair to wonder if they're not rushing



the text of a highlighted message. Icons across the top of the screen control functions such as Open and Save.

The feature comes with a good spelling checker that works much like the one in Microsoft's Word for Windows. The enhanced Address Book supports Internet addresses and, finally, there's plenty of room to write your heart out - up to 28 Kb of text.



Ric Manning writes about computers and technology for *The Courier-Journal* in Louisville, KY. His weekly column on consumer electronics is syndicated through the *Gannett News Service*. Ric reads his e-mail at ricman@iglou.com on the Internet, and *USJM92A* on Prodigy.

to put themselves out of business. Will we still care to pay for Prodigy's Bulletin Boards after we discover newsgroups? Won't Internet Relay Chat be just as useful as Prodigy's Chat?

I don't think anyone has a clear picture of what role the consumer services will play when we're all citizens of the Internet. But Prodigy may be charting its place in the new order with a new feature called *Communities of Interest*. The Communities bring together relevant information from inside and outside Prodigy and make it all easily accessible.

Here's how it works. Let's say you're a movie fan. You keep up with the reviews of new films, you've got a collection of classics on videotape and laser disc and you love a good argument about the best directors and the worst actors.

On Prodigy, you're a good candidate to join the Movie Community. When you Jump to that section, you get quick access to Prodigy's film-related bulletin boards, Prodigy's Movies and TV chat room, a collection of more than 20 film and video-oriented USENET newsgroups and a World Wide Web home page created by Prodigy to point you toward the best Internet resources for film buffs.

The USENET collection, for example, includes

- rec.arts.movies.production
- rec.arts.sf.movies
- lt.video.laserdiscs
- rec.video.satellite.dbs

Prodigy calls its movie-lover's Web page the *Internet Multiplex*. In Theater 1, you get pointers to film reviews from sources as varied as *Playboy* magazine, *Cinemaven* and the Film Society of Lincoln Center. Theater 2 points you toward moviemaking business pages, including Professor Neon's Film Review and Movie Publicity Materials, the Buena Vista Press Room, The Hollyweb Studio Briefing and a list of All-Time Top Grossing Movies.

The other parts of the multiplex offer movie guides, including Cardiff's Movie Database, information about actors and actresses, movie soundtracks, festival schedules and links to film studio home pages.

Prodigy is experimenting with similar communities devoted to television, genealogy, investing, personal connections and other subjects. In May, it opened an Auto Racing Bulletin Board linked to an Auto Racing Home Page at

<http://antares.prodigy.com/autorcoi.htm>. Although the page is on the Web, it's accessible only to Prodigy members. Both are hosted by Les Welch, a photographer for the National Hot Rod Association.

By creating the communities, Prodigy becomes an organizer and packager of online information. Prodigy already does that within its own service, but now it's expanding its reach to include the Web as well.

That may turn out to be a service that Prodigy members find valuable. With the explosive growth of the World Wide Web, it's hard to keep up with all the new pages and services and a browser's bookmarks can go out of date almost overnight.

Internet Guru John Perry Barlow predicts that finding and packaging information for specialized interests could be the first viable business on the Internet. Prodigy's Communities are a first step in that direction.

CAR SHOPPING ONLINE

It was spring and the wife's fancy had turned to ... a new car. We were ready to shop, but where to start? We began with Prodigy. We typed **JUMP CARS** and were presented with a menu of about a dozen different features for car buffs and buyers. Under 1995 Cars we were offered specs, photos and reviews of 25 new cars.

The specs were pretty standard stuff - wheel base, trunk sizes and such. The reviews were written by Peter Bohr, a contributing editor for *Road & Track* magazine. Bohn said he reviews only cars that were substantially changed from the 1994 versions.

Several manufacturers also had sections on Prodigy. Honda and Chrysler had sections showing off all their models. Chevrolet promoted its cars in an area that reported on the America's Cup race and Saturn On-Line included a directory of Saturn dealers.

We were looking for a service that would give us the dealer's invoice prices for various models - information we thought would give us a negotiating edge. **AutoVantage** offered to provide those prices plus other details in profiles of three cars.

AutoVantage members, we saw, could get the profiles for free. For non-members, the cost was **\$11**. How much to become a member? Just **\$1** for three months, but after that, AutoVantage said it would bill our credit card for the **\$49** annual fee - and do it without asking. I don't like those sort of blind fees, so we backed out of the AutoVantage area. I later found the invoice prices for all new cars on a floppy-based product for less than **\$50**.

Other features in the auto section included **Online Classifieds** for selling used cars (**\$20** for a 30-day listing), a bulletin board for car buffs and a section that purported to contain car owners clubs, though only Toyota appeared to have an active organization.

The most useful of Prodigy's auto sections turned out to be the *Consumer Reports* material on cars. The magazine posts electronic versions of many of its car-buying articles and we loved reliabil-



ity ratings for 1994 cars. They are compiled using reports from actual owners.

The ratings helped us narrow the choices down to sporty cars that fit in our price range. Today, the wife is tooling around in a spiffy Acura Integra. Me, I'm still driving this old Intel 486. ♦

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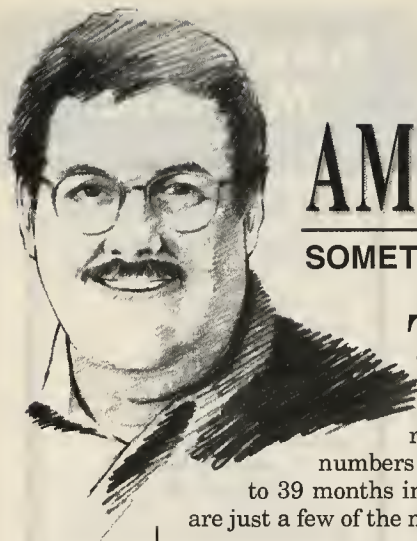
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AMERICA ONLINE by Dave Tennant

SOMETHING BOUGHT, SOMETHING BORROWED, SOMETHING NEW

The old saying goes "A rolling stone gathers no moss." This quarter, America Online is a hurtling stone. The company reports that member account-life numbers increased from an average of 36 to 39 months in the last quarter. The following are just a few of the new things going on at AOL.

By the time this edition hits the newsstands AOL will probably have finished its WAOL 2.5 upgrade which includes their new Web Browser, and the Mac Browser may be available as well. In May, AOL reported that their Web site generated more than 1.5 million "hits" each day. AOL is expanding its Web services and getting ready to offer members the ability to publish their own personal Web pages; it has acquired several companies in stock deals, but more on that later. Gamemeister Nintendo has joined the service with a forum. Congressional Quarterly lends its expert perspective to AOL's political offerings, and shopping may be getting a little more entertaining - if not less expensive. However, first things first.

USING AOL WITH A TCP/IP PROVIDER

If you find yourself complaining about access speeds to AOL, consider piggy-backing your favorite online service on your favorite Internet provider with a Transmission Control Protocol/Internet Protocol (TCP/IP) connection. Just as other Winsock compliant software (such as Netscape, Eudora, and WSIRC) can be run on a TCP/IP connection, so can AOL. This also works on a local area network or via modem to an Internet service provider (ISP) using SLIP or PPP. The TCP/IP connection is provided at no extra charge from AOL.

I use Netcom, a popular and inexpensive alternative in my area. My \$17 a month SLIP account gives me 40 hours of prime time and unlimited time evenings and weekends. The latest version 1.6 of Netcom's Netcruiser is Winsock compliant. While running Netcruiser, choose **Settings/Startup Options** and click on "**Autoload Netcom's Winsock.dll.**" Restart Netcom and then minimize and start AOL. It's that simple.

In the new AOL version 2.5 for Windows, modems are automatically identified in the original setup and the user is given a choice for networks instead of modems. The choices for networks are: AOLNet, DataPac, SprintNet, TCP/IP, or Tymnet. To locate an Internet service provider in your area, you can try contacting a local university or look in the business or computer sections of a local newspaper or computer magazine. You can also download a listing of public access Internet providers from AOL by keywording "QuickFind" and searching for the file **PDIAL**.

If you do not have the latest release, just **Keyword: UPGRADE** and order it online, or **Keyword: AOLPreview** and download the newest version of the software; then install (it is free if you do it right then).

AOL ACQUIRES GNN, WEBCRAWLER

Global Network Navigator (<http://gnn.com>) is unique in that it is a total Internet product, not an electronic version of an already existing paper publication, and its specialty is helping users to navigate around multitudinous Internet services in just as easy a method as AOL's navigation. GNN's access to up-to-date Web areas such as Net News, The Best of the Net, Netizens (people who populate the Net), all fit AOL's long-term strategy of moving to the WWW to allow users to create their own online experience of content if they do not want the selections which the major services provide - or do not provide, as the case may be.

GNN's progenitor is O'Reilly & Associates, an Internet publishing leader providing its readers with such books as *The Whole Internet Catalog* and *Using E-mail Effectively*. GNN is easily one of the leading sources of information about what is new on the Net including society, sports, travel, and finance. The registration for the service on the Internet is free, so you can sign up and immediately begin to make use of this most valuable Web information tool.

WebCrawler, also recently acquired by AOL, is an easy-to-use Internet search tool which, will be incorporated into AOL's new Internet brand. Developed by Brian Pinkerton (see Dr. Bob Rankin's interview elsewhere in this issue), WebCrawler is widely regarded as the most popular, fastest, and easy-to-use Internet search tool available today. It will give AOL the ability to keep up with the exploding growth of Web Sites by allowing users to locate information through full-text searching of the content, and it does it fast!

WebCrawler, the first full-text search service available on the Internet, is available free at <http://webcrawler.com>. WebCrawler's advanced search and indexing capabilities may give AOL the edge in augmenting directories and providing more timely indexing than any other current method of updating Web Site directories to date.

MEDIOR AND WAIS INC.

And since they were in the mood to shell out more stock, AOL bought two multimedia and Internet publishing and production companies, Wais Inc. and Medior Inc., in stock transactions worth a total of about

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\$46 million. WAIS, Inc., was purchased for about 400,000 shares and 825,000 shares went to acquire Medior, Inc. AOL is hoping to speed up its production of multimedia publishing programs in the areas of entertainment, publishing, education and electronic commerce through the use of interactive CD-ROM's.

NINTENDO ON AOL

Gamers and aficionados of Nintendo can now become bigger mouse potatoes. Nintendo has teamed up with AOL to create a forum where gamers can meet online with the games' designers to plot strategies, make queries regarding new developments, exult in their victories, and get the latest hints so as to avoid the next crushing defeat. Nintendo has also created a Web site which has real time chat sessions, previews of coming attractions, and downloadable video clips of the latest games.



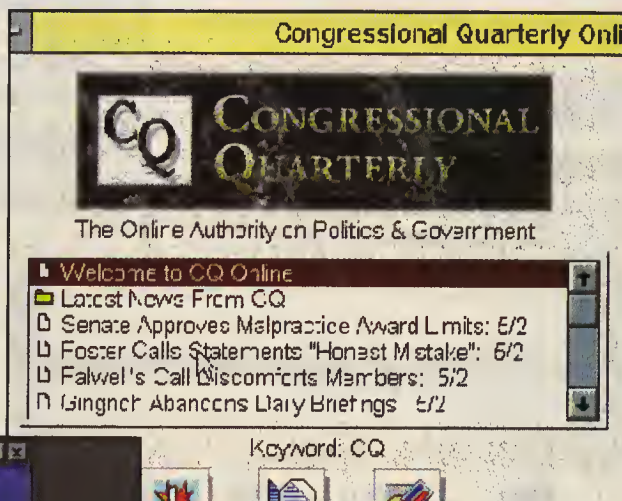
Called the Nintendo Power Source (**Keyword: Nintendo**), the forum is intended to take some of the load from the already implemented 1-900-number, automated-messaging Game Play Counselor (GPC) Hot Line. NOA Paul, the Game Counselor for this new forum, will be expected to take on some of this load and meet Nintendo's goal of trying to answer every customer's question.

Click-button access will enable users to subscribe to the *Nintendo Power Magazine*, download further news on Nintendo's 1500+ game products, participate in the Donkey Kong "Banana Bucks" game (if it is still running), or see the latest addition to the Nintendo collection, Donkey Kong Country 2: Diddy's Kong Quest, in which Diddy Kong teams up with a new, female sidekick, Dixie Kong, to take on the evil Kremplings who have kong-napped Donkey Kong ... if you

didn't already know. And I thought Doom was time-consuming!

CONGRESSIONAL QUARTERLY

The *Congressional Quarterly* (**Keyword: CQ**), started by Nelson and Henrietta Poynter in 1945, has joined the AOL family. Begun over four decades ago with the intention of providing accurate information to help reporters understand the complexities of Washington's byzantine ways, CQ merged with Editorial Research Reports (ERR), becoming the *CQ Researcher*. Now the *CQ Researcher* provides one of the best inside looks at what is happening in Washington.



were able to view how the people who rate politicians graded them. They could have even taken a tutorial on how Congress works and how a bill becomes law.

SHOPPING VENUES ON AOL

Shopping via computer is still in its infancy, and that is certainly true on AOL. In some cities AOL members can order groceries and pharmaceuticals. Shoppers Express, a shop-at-home company based in Bethesda, Maryland (301)229-2700 – provides a variable-cost extension of its shop-by-phone service. They have made deals with enough retailers to cover less than half of the major metropolitan markets in the country. Members can call AOL at (800)999-1387 to see if their area is covered.

Consumer Reports is now on AOL, and there is a wealth of information with which to make those tough buying decisions. But is computer shopping going to give malls a run for their money? Not likely.

Designed more as entertainment shopping than as a bona fide way to get the job done (if that's what shopping is), AOL is offering members the chance to peruse electronic catalogues and purchase items at the same catalog price using their credit cards. (At the same price? PLUS AOL connect charges? What good is that?)

The Congressional Quarterly forum is a valuable source of essays, surveys, data, sidebars, and charts for researchers. Assigned a semester project for economics, several of my students were desperate for the latest information on the Balanced Budget Amendment and welfare reform. In the CQ forum they were not only able to locate briefs from the CQ Researcher but also look in on Washington news and analysis, access reference files, and check the latest electronic edition of *Governing Magazine*. They were able to find a synopsis of each of the issues and contacts for more information.

Digging further, they found voting records and contacts of their local representatives. The students clicked on "Inside Congress" and were able to look up the e-mail and snail-mail addresses and phone numbers of their

The new forums are called Global Plaza (Keyword: Global Plaza) and 2Market (Keyword: 2Market). At press time both were still largely under construction. Using the software HSN Interactive, AOL is acting as a cyberspace middleman to provide its members access to information on autos, vitamins, catalogs from Lands' End, Starbuck's Coffee, and flowers. Accessing the information to buy is cool:



no salespeople to pressure you, you find things at your own pace, and you look where you want without someone looking over your shoulder (unless it's your

tions and a photo, so you can see what you might want to buy, but you still can't get enough information without touching the thing.

boss and you are on company time).

Nevertheless, I think the joy stops there. Brand name products like Lands' End, The Nature Company, Hammacher-Schlemmer, The Chef's Catalog, etc., each have products with descrip-

money. In 2Market, click on the button "Gift Expert" and you will be queried about the occasion, the person, their characteristics, the nature of the event, and in what price range you are willing to pay. This information is then sent to the forum, whose experts will answer your emergency gift distress call with bundles of gift suggestions. Or you can check out the ever-growing list of "Gift-Giving Tips." These people have great jobs! They get to think all day about how to spend other people's money. ♦

But I am not going to shell out almost \$600 for something I cannot take for a test drive! So why is this any better? I think it may be in just one way. Let us say you're one of those people who cannot figure out what to get that special person. 2market may just have the answer; ask the Gift Expert.

The Gift Expert is a forum host like any other, offering advice but with a very specific purpose - assisting you in spending your

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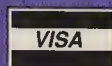
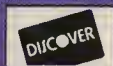
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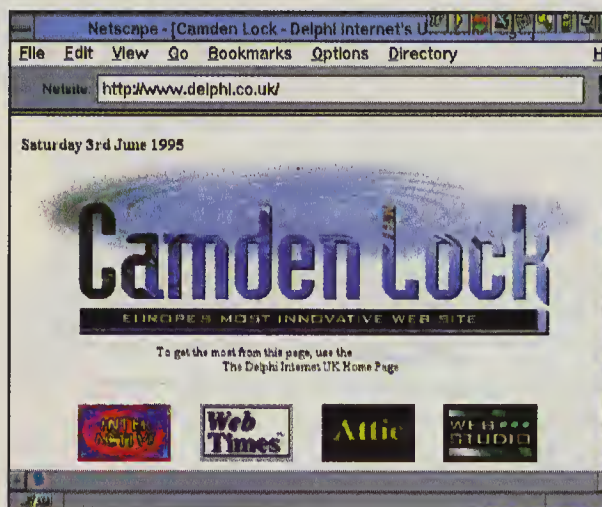


DELPHI

by Walt Howe

CAMDEN LOCK WEB SITE ON DELPHI

DELPHI UK, the DELPHI service "across the pond," has introduced a very active and regularly changing Web site, called **Camden Lock**. This site gives us some strong clues what the future DELPHI service is likely to look like. It draws on the *London Times* and the creative imaginations and unique humor of the British staff. Accessible from the main DELPHI web page at <http://www.delphi.com> or directly at <http://www.delphi.co.uk>, the Camden Lock's home page is shown below.



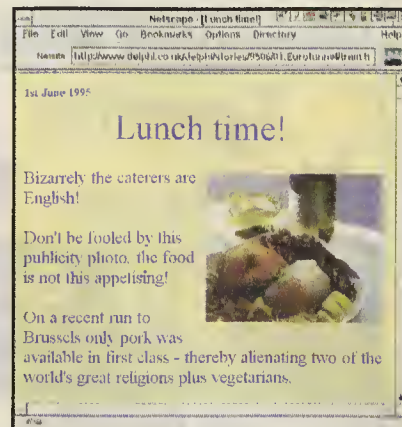
On the first screen of the home page are buttons for four areas. The **Interactive** button leads to such interactive features as games. The **Web Times** leads to daily changing features from the *London Times*. The **Attic** is an archive of features from past issues of the web site. The **Web Studio** includes job announcements. These features are not very accessible to a text browser. There are no alternative text selections - just the buttons. But the content is largely visual anyway, and I do not recommend that those with text-only browsers try to visit the site.

Below the buttons are additional screens with features such as photo essays. The current issue, as this is written, includes features on the English Channel tunnel, body piercing, and a dog's daily trek to the nearby pub, among others.

PHOTO FEATURES

The Camden Lock feature on the English Channel

tunnel uses a few pictures with brief, well-chosen comments to give a bit of the flavor of the ride. The following two screens show extracts from the commentary on the Eurostar train ride through the tunnel, with typically British humor.



A second photo feature deals with body piercing. The photos in this feature show us in detail the process of piercing a nipple, a nose, or a tongue. The next screen capture shows one of the less bizarre photos in the series. If your tastes run to learning more about the process, find the feature and you'll see all you want about what is involved in this elective cosmetic surgery.

A picture series on a dog makes a good counterpoint to the body piercing pages. There is something for everyone in Camden Lock. In the dog series, we follow Sam - a friendly shepherd/collie mutt - on his daily trip to the local pub. The setting is bucolic and takes advantage of the backgrounds that Netscape allows to put a grassy backdrop to the whole series.

THE ATTIC

If you want to see the above features online, they probably will not be accessible directly from the home page when this is printed, but they should be available by poking around in the Attic. Just press the Attic button on the main screen and

Walt Howe is DELPHI's Internet Special Interest Group (SIG) Manager. He campaigned for the DELPHI job after retiring from 32 years as a cryptanalyst, Signals Intelligence trainer, technical writer, training developer, and training manager for the Army.

Walt estimates he has helped 350,000 people to learn to navigate the nets on and off DELPHI.

Walt is the CO-author of *Internet Basics* with Steve Lambert.

Walt encourages people who want to learn about the Internet to take advantage of DELPHI's 10-hour free trial. Dial (800) 695-4002 by modem, login as **JOINDELPHI** and use the password **INTERNETSIG**. If you have questions, send e-mail to walthowe@delphi.com. Walt's home page is at <http://www.delphi.com/walthowe/>.

start exploring. Or you can reach it directly at <http://www.delphi.co.uk/delphi/attic/attic.html>.

THE WEB TIMES

A regularly changing part of the Camden Lock page is the portion based on the *London Times*, which draws on the current news for features. It doesn't duplicate or replace the daily or Sunday newspapers by any means, but it gives a selection of features which benefit from the brief visual treatment. When you select the Web Times button, it takes you to a screen with two choices: the "Innovations Web" from the Sunday *London Times* and the *Times Higher Education Supplement*. See the screen with the Innovation Web Sunday headlines and the following screen with the headline story from that section.

Like many a newspaper these days, there is a selection of Hot Spots – selected web sites to visit recommended by the editors. The Hot Spot screen is shown in the third figure with the orange background. Each section of Camden Lock has its characteristic "look."

INTERACTIVE



The InterActive button leads to a semi-animated display of screens that counts down to the first real screen of the section. This count-down is mildly interesting the first time you see it, but quite annoying to revisit. If you want to revisit one of the games or features from this section, save the bookmark for it, so you can bypass the countdown screen. Within this section are a mystery/adventure game called Phlong (see the screen), an interactive problem solving game, and a white screen which may or may not welcome user contributed pictures for future displays. It was blank during my visits. Earlier they had a graffiti wall there.



THE WEB STUDIO

This button leads to job announcements. Like DELPHI in the USA, DELPHI UK seems to be

vigorously hiring. The last screen capture shows the ad for an Editor to contribute to the future development of this rapidly growing service, and there are other vacancies for the various skills the online service needs.

WHERE IS THIS SERVICE GOING?

Camden Lock seems to be well ahead of the USA efforts in rolling out a new service for DELPHI. There is a lot of creativity and talent obvious in these early efforts. Rupert Murdoch, the owner of parent company News Corp., has spoken of his intent to move strongly into online publishing, drawing on the strengths of subsidiaries like the *London Times* and other newspapers, *Harper Collins*, *TV Guide*, and the Fox TV and Movie studios. While we can see this vision beginning to be realized, there are few hints about how the interactive people-to-people forms of communications will take shape on the new service. Much of the Internet's growth has occurred because people with similar interests all over the world could communicate with each other in various ways, ranging from e-mail to public message forums to live conferencing. Communications will have to be part of any successful service, and how well this is realized will have a lot to say about the future.

THE WORLD COMMUNITY FORUM

One of the best constructed SIGs on DELPHI is the World Community Forum. It has made the most of the idea of bringing people from around the world together. There are no online graphics as yet in this part of the DELPHI service. The ASCII formatted opening screen looks like this:

==[!WCFL]==

Let us put our minds together
and see what life we can make
for our children.

Sitting Bull, Lakota Sioux, 1877

"The World Community"

==[!WCFL]==

The Forum provides links to many Internet resources—web pages, gophers, and newsgroups that reinforce the world community theme. It also ties in many related forums within DELPHI that contribute well to the theme. This list of links shows the diversity of interests on DELPHI.

The World Community SIG invites you to select from among these related Custom Forums, the Hosts of which have sole responsibility for content.

==[REGIONAL & CULTURAL]==

Black News Network (CF 419)
North American Chinese Affairs (CF 327)
New York..New York (CF 166)
New Orleans Cajun Country (CF 346)
Dixie States (CF 381)
Northern Michigan (CF 178)
Irish Roots.(CF 124)
Scotland Online.(CF 165)
Jewish Life (CF 331)
UK-American Connexion (CF 171)

==[HEALTH]==

Child Health (CF 264)
Public Health (CF 14)
Alternative Health (CF 299)

==[HERITAGE]==

[Roots - Geneology (CF 68)
History & Archaeology (CF 243)

==[RELATED INTERESTS]==

Travel Talk.(CF 96)
Bed & Breakfast (CF 408)
Peace Corps (CF 113)
International Digest (tCF 190)

==[COMMUNITY ACTIVISM
& ORGANIZATION]==

Building Community (CF 60)

NEW CUSTOM FORUMS THIS MONTH

As usual, DELPHI continues to grow as members take advantage of the opportunity to create their own Custom Forums. Here is the list of new Forums created in the past three weeks:

FORUM 129 -
THE CIRCLE OF MAGICIANS
FORUM 254 -
THE HIGHLANDER FORUM
FORUM 249 - ALT.MAGIC.SECRETS
FORUM 447 -
THE MEANTIME LOUNGE
FORUM 048 -
THE MULTIMEDIA FORUM
FORUM 275 -
INTERNET SECURITY/POTP SUP-
PORT/" SOFTWARE ONLY"
FORUM 379 -
MODERN COMPUTING CONCEPTS
FORUM 452 - THE LOST REALM
FORUM 398 - CAR CULTURE
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- Comprehensive firewall security systems and installation.
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SEAQUEST VIEWERS CHALLENGE NBC ONLINE

by Gordon Fellers

Each Sunday night during the later months of '94, viewers of the NBC show *seaQuest* compared notes on the show with one another via the I-Way. In a challenge that could upset some of the top brass of the TV industry, these ordinary viewers, banding together on the Internet from sixteen nations, became so well organized that they effectively demanded input into the creative direction of this expensive series.

Initially, just a few dozen viewers chatting about the show online became upset when *seaQuest*, once a high-minded science-fact series about ocean exploration, hacked off much of the old cast and veered off course into the murky waters of sexed-up fantasy. Soon, *seaQuest* acquired a few nicknames on the Internet – "Bayquest 90210," "Das Bomb," "Voyage to the Bottom of the Barrel" and "sea Breast: the Quest for Breast."

By December, 1994, frustrated and disappointed viewers began to organize in earnest. One viewer in California wrote up a petition and sent it to an online friend, a woman who is herself a member of CompuServe's powerful Sci-Fi Writers Forum. They passed it back and forth between themselves for a week, editing and re-editing the petition. Then the petition was posted online in various CompuServe forums and dropped into the e-mail boxes of SF viewers. Several hundred users signed on and this was the start of a core group. The petition made its way to AOL, was picked up there by users who also had access to other services such as Prodigy and GEnie. When a call for volunteers went out, users responded enthusiastically. A dozen regional US coordinators, online coordinators for all services and three overseas coordinators were all self-appointed.

Quest's producer) and to NBC. A Web site devoted to the campaign – <http://www.best.com/~maryflr/P1-Intro.html> – was visited by tens of thousands. An official global clearinghouse was established in California, equipped with fax and copy machines, three phone lines, a network of computer equipment and campaign stationery with logos. New local coordinators popped up each day, including volunteers as far away as Canada and Australia.

"seaQuest is marketed in many different countries," says one volunteer manager of the San Rafael clearinghouse. "Savvy viewers began to suspect that *seaQuest* was being dumbed-down during the '95 season to appeal to the larger global market. But if that's true, it's a mistake. I'm hearing a lot of global grumbling over the Internet. The Australians are particularly unhappy with the shows that are being served up for their consumption each week."

What makes this campaign unique, and what in turn apparently makes the NBC execs so uneasy, are the viewers' demands. While viewers would like to see the series renewed, it comes with a pretty strong caveat: improve the show – or else. Couch potatoes are demanding the chance not only to talk

Gordon Fellers is President of Integrated Strategies of San Rafael, California and also a video documentary producer.



Inferior Story Lines Send *seaQuest* to the Ratings Floor

On-Line Insurrection against Failed NBC Policy Builds.

back to the tube, but to be heard. To make certain they get heard, they've mobilized significant numbers of like-minded viewers to forward messages of protest about show quality to Amblin and NBC via e-mail, snailmail, fax and phone.

Some of the changes the viewers are demanding include:

A small petition that began on CompuServe exploded into a real campaign, first organized around the five thousand signatures from all over the world which were collected by dozens of coordinators in key cities. High school students collected signatures in hallways. Viewers shipped off hundreds of letters to Steven Spielberg's Amblin Entertainment (sea-

- (1) Stronger and more complex female roles;
- (2) More cast diversity: the average age of the cast is very young and viewers say that although it may be pretty to look at, it's actually monotonous;
- (3) De-emphasis of "cleavage" which has been handled in a tasteless and gratuitous manner all season;

(4) A significant improvement in the writing (character development and continuity are particular issues);

(5) More attention to be paid to accurate science;

(6) Complete and unequivocal withdrawal of the exceedingly unpopular fantasy/monster/psychic phenomena themes that seem to pop up with all too much regularity.

When pressed by viewers, NBC's VP in Charge of Programming Preston Beckman made a dramatic public admission. In a live AOL chat in late April, Beckman said that NBC had changed seaQuest dramatically because the show was on a "ratings downtrend and the network thought that a change in premise might help, but we were wrong. We just pissed off the core viewers." Further, Patrick Hasburgh, seaQuest's show runner, admitted to being influenced by the campaign in that same week's *TV Guide*. Among other things, he said that "we absolutely overstepped our boundaries at one time or another...the episode where we tried to bring the mythic figure of Neptune into

America's living rooms was a good example of our reach exceeding our grasp." This particular episode featured a trident-carrying Neptune (referred to in the show as a "Greek god!"), a superfluous shower scene highlighting excess cleavage and a singing rock star whose eyes glowed whenever her body was "possessed" by the female god, Minerva.

One viewer from Kansas wrote in protest that "good characters have been exchanged for cheap gimmicks, and the emphasis has changed from science fact to cheesy fantasy." Nancy Pribanich, a key strategist in the campaign, called NBC "the network that forces its viewers - and its most distinguished star - to beg for quality."

In defense of the show, Javier Grillo-Marxuach, the NBC executive who oversees the series, said in an e-mail message to the campaign clearinghouse that seaQuest pulled in ratings much more consistently than last year and has "turned on the lights in a difficult time slot." But, he says, "If the viewers are passionate and motivated enough to put forth a considered opinion, the best I can say is that I am listening."

"Viewers won't accept a few crumbs of change", replied Jen Lui-Grushka, President of CapeQuest, the largest and most well-respected of the seaQuest fan clubs.

Will this campaign change forever the way networks interact with their viewers? "We have a singular goal, which is the improvement of seaQuest," says one online campaign participant. "However, in this age of global communication technology, networks ignore viewers at their peril. And they are very out of touch. Viewers can infiltrate and rock the boat in any market."

The online Davids are taking on two Goliaths, NBC and Amblin. Viewers are angry and disappointed - to say nothing of being well organized and smart. And they have every intention of snapping at some heels. The petition and regular action bulletins have been posted on many of the Internet's newsgroups, including **alt.tv.seaquest**, **sci.geo.oceanography** and **rec.arts.sf.tv**. The petition is also posted in the sci-fi television areas of AOL and CompuServe. The campaign's email address is **maryflr@best.com**. ♦

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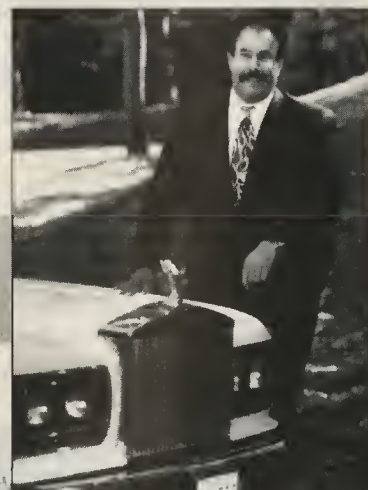
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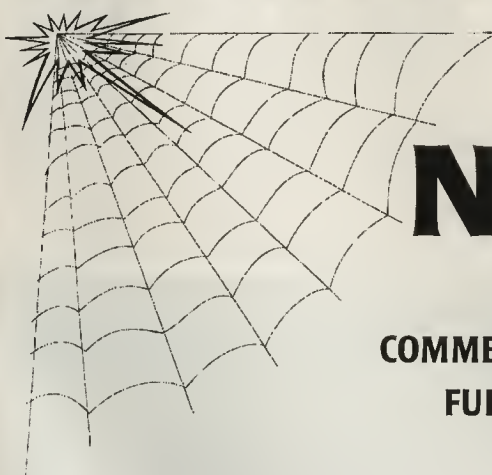
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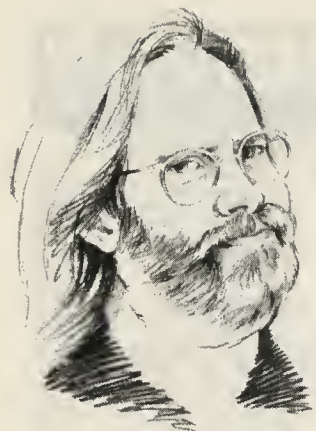
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BEGINNER'S LUCK

by Doug Shaker

LEARNING TO BE A SYSOP

Doug Shaker owns and operates The Smalltalk Store. He can be reached via e-mail at doug@smalltalk.com. He has one wife, two children, three cats, four computers and five telephones.

In the last six columns or so, I have worked my way through the mechanics of getting a BBS started. I now have a pretty functional system and a fair number of calls - usually between 10 and 25 a day. The software that I use is pretty nice and I have a lot of bells and whistles working - telnet access over the Internet, web pages, USENET newsgroups. But I'm not really satisfied with the board because it doesn't seem to have much of a social function. I guess my BBS is a geek - technically useful but without a social life to speak of. But I'm like any parent - I don't just want my BBS to be useful, I want it to be *liked*. This month I have been struggling with the people problems of my BBS.

STARTUP SCREENS

Problem number one is getting people logged on. I try to provide the information required to log-on properly in the startup screen, but - *arrrrrggggghhh!* - people just won't read it. Do you know how to get BBS users to read one? I sure don't. *Grrrr!*

A moment of background for those of you who aren't BBS sysops. When someone calls a BBS, the BBS software usually shows some text to the user before they log in. Theoretically, you could do anything with that text - display your great-grandmother's oatmeal cookie recipe or describe the fleece on a prize Merino sheep - but usually the sysop for the BBS uses that space to tell the user what board he or she has contacted, and to let them know a little about the log-in process. It is a user's first contact with the system and it sets the tone of the system. Consider, for example, the difference between the following pair of sample opening screens. The first is a snore; the second is much livelier if a tad "immoral."

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Be sure to check out the agenda for the MegaBore User's Group Meeting, too!

"How to Drive Callers Off In One Screen"

Clearly, anyone with enough brain cells to fill the heat sink on a Pentium would expect these boards to be a bit different. And that is all to the good. The whole

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"A Really Warm Welcoming Screen"

point of the startup screen is to let your users know as much as they need to know before they sign on.

It's tough to design a good startup screen. It has to be a little catchy and it is usually limited in size. The reason the startup screen needs to be limited in size is that it is usually piped over the modem to your user before your BBS software has any idea what kind of terminal software your user is using. Since we don't know anything about their hardware, it is usually a good idea to assume the worst. I try keep it to no more than 24 lines high and no more than 70 or so characters wide. Into that space, you need to cram a short description of your BBS, some indication of your membership policies, and some indication of the fees you charge, if any. Here is the startup screen that I use:

WELCOME TO THE SMALLTALK CAFE!

This is a BBS devoted solely to Smalltalk and Smalltalk-related items.

To create an account, just enter your name and answer a few questions. The information that you enter will not be sold anyone else. However, I will GIVE names to people starting a Smalltalk User's group in your area.

If you have been reading my columns in "Boardwatch" magazine and are just calling to look around, please login with the name "Boardwatch Guest" and the password "NONE"

->> NOTE: If you are calling in over the net, you should know that most telnet implementations are NOT 8-bit clean. This means that you probably will NOT be able to download binary files over the telnet link. It is worth a try, but if it fails, see if I have an equivalent text file, try another telnet or downloading over a dial-in link.

Doug Shaker The Smalltalk Store
Operating with 28.8k USR modems.

"Smalltalk Cafe's Opening Screen"

I mention the purpose of the BBS, the fact that I need their names to start an account, what I will do with the names, and some advice for people logging in over the net. I also display, as prominently as possible, instructions for *Boardwatch* readers calling in to just look around. (Check it out, (415)854-5581 or telnet://bbs.smalltalk.com) I don't want my readers creating hundreds of accounts that are used only once, so I provide a single account for people to look around with. Since my BBS software doesn't allow for accounts without a password, I had to give the "look-around" account a password. This means that it is a tad harder logging in as a guest than I might like, but I had no choice. However, I figured if I mentioned the account name and the password in the sign-on screen, no one would have any trouble with logging in.

Boy, was I ever wrong. People just don't want to read the startup screen! Every day, I look in the event log for the BBS and find one, two, even five folks calling up and trying to log in using the name "Boardwatch Guest," but being unable to do so because they can't figure out the password. There they are, trying to log in, guessing passwords, while the password to use is plainly printed on the screen, scrolling up one more line every time they try.

Now, with my BBS software, if you fail to log in, you are given an opportunity to send an e-mail message to the Sysop. This means that I often get pleas for help like the following (name changed to protect... well, the guilty):

"I was reading in Boardwatch about your board and wanted to look around, but I couldn't log on. What am I doing wrong?" -

Throckmorton Slumgullion-Beaselton

What makes this plea interesting is that there is no way to respond. Mr. Slumgullion-Beaseleton has given me no e-mail address. If I use the "reply" function on my mailer, it will go to the account "Boardwatch Guest" where hundreds of people can read the answer. Hundreds of people that already know the answer because they have logged in. And since he can't log in, Mr. Slumgullion-Beaselton won't be able to read the answer there. Mr. Slumgullion-Beaselton is out of luck until he reads the sign-on screen. Can I make him do so? No.

Gratifyingly, I also get messages like:

"Jeez, I was trying and trying to log in, but I couldn't. Then I looked up and saw your message in the sign-on screen giving the password, and I was able to get right in. Serves me right - I'm always getting mad at the users on my board for not reading the sign-on screens." -

**Cassandra Thingpoche-
Guruananda
Sysop of Reincarnation Gulch
BBS where "born again" really
means just that.**

I don't know why such a message feels good. It's something like an "I told you so," but I didn't have to actually say "I told you so."

But I still don't know how to get people to read my sign-on screen.

TRYING TO GET PEOPLE TO TALK

I have also been having trouble getting people to participate in discussions in the various forums I have established. Hmmmm. Let's put that a little stronger. I am having trouble getting *anyone* to participate in *any* of the forums (fora?) that I have established.

Let me give you an example. My BBS is aimed at Smalltalk developers. Smalltalk is an object-oriented programming language that is enjoying a surge in popularity now. The two largest suppliers of Smalltalk are ParcPlace Systems and Digitalk. About two weeks ago, they announced that they would be merging. This is *big* news for us Smalltalk geeks. I created a forum on my BBS to discuss the merger, created a bulletin describing the forum, and got the bulletin set up so that everyone logging in would see it. Then I posted a message to the forum to start the discussion rolling.

I was answered by a nice fellow with some opinions about the future of support for the merged company. Believe it or not, this fellow lives in Finland. He connects to the BBS through a telnet link. I guess there are some advantages to being connected to the net. At any rate, I answered him with some more speculation. He answered me. We're up to eleven messages in the forum now, but I was hoping for more participation

from other people, more of a social thing. Patience, I tell myself. I have been spending the last six months on technology for the BBS. Now, if I want to build a socially coherent set of users, I should expect that to take another six months.

A LITTLE SUCCESS HERE AND THERE

There are a few parts of the BBS that are already having the impact I had desired. When I planned the BBS, I thought I should archive Smalltalk-related job postings that I see on USENET and other information resources. I expire the postings after 60 days, but even so, I have a little more than 40 job ads there. Most of the ads are for multiple openings, so I estimate that I have 200 to 300 job openings listed in that forum.

I had thought that the ads would be useful to my targeted user group so that they can find job openings easily when they are out of work. That thought seems to have been exactly on target. Two days ago, I got a nice phone call from a fellow who lives near New York with his wife and son. He is an independent contractor, doing Smalltalk programming. He had come to the end of his previous contract and was

looking for work. He claimed to have gotten five solid leads from my archive. He wasn't desperate or anything, but the BBS may have shortened the time he will be out of work by a few days or weeks. That's nice. The BBS

is providing a function and I do get jazzed when I see that it makes a difference to someone's life.

Still, I would like my BBS to be more of a friendly kind of place. Maybe it will get there, with more work on my part.

TEENAGE MUTANT NINJA DISKETTES

I am still looking for suggestions for making productive use of all those diskettes that AOL sends out trying to get you to log-on. I get several every month, sometimes several a week. There has to be something good (or at least funny) we can do with them. Among the best ideas so far - **ninja stars**. If you have an idea that you would like to share with the world, send it to e-mail://coasters@smalltalk.com. The best ideas, in my not-so-humble opinion, will be reported here in the next two issues of *Boardwatch*. No prizes, just a microsecond of fame. ♦

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PEOPLE ONLINE

by Phyllis Phlegar

BULLETPROOF MISSIONARY

When I moved to Colorado, I was painfully aware of how unfamiliar everything was. But what was even worse was that I'd left behind close friends, and while I knew I'd miss them, I didn't know how much.

The big move west was a bit unorthodox...I'd been listening to the Colorado-based Business Radio Network (BRN) on an affiliate in North Carolina, and I decided I wanted to work there. So in the Spring of 1991 I sold my house and most of my belongings, put my cat Saturn and her daughter Mimas in the car and headed west.

Luckily, the staff at BRN agreed that indeed, I'd fit in, and I was hired three months after my first interview. Suddenly I had an instant social group, people to party with and...I could ask them for directions! Unlike most of my other radio jobs, BRN had several other women on the air, a woman in engineering, and several in sales and management. And the guys were not shivering in fear of being politically incorrect, yet they were respectful in a rugged, incorrigible and irreverent kind of way.

I made new friends, and a new "best" girlfriend, Sondra. Sondra had lived here most of her life, and already had plenty of good friends. She and I had fun together, we talked about everything and enjoyed working with each other at BRN.

About a year later, BRN was sold and nearly everyone was laid off, except for me and a few of the guys. Sondra moved to Florida, accepting a lucrative job offer. Oddly enough, she now lived within a few miles of my parents, and her parents still lived only a few miles from me. When I visited my folks, I'd see her too, and when she visited her folks, she would visit me. Of course, I met her parents. I recall her father, Hal, being especially quiet.

The last time Sondra visited she asked for copies of a few of my articles to give to her father. I couldn't figure out why he'd be interested in anything I'd written for *Boardwatch Magazine*. But Sondra assured me that her father spent a lot of time online, and would find the articles interesting.

She was right, and within a day he'd e-mailed me. Over the next few months I got to know Sondra's father, Hal, and just what kind of work he was doing online...he is a cyberspace missionary. Quite literally bulletproof. Through his connections overseas, and his knowledge of the Internet and other networks he's

been able to effect great change in people's' lives. This didn't happen overnight, of course; Hal's life, from the very beginning, wasn't easy. He was born in Tennessee during the depression, the fourth child in a struggling family. Things got so bad that when Hal was 8, he and his older brother were taken in by his aunt and uncle, where he learned to do all housework, outside work, gardening, canning, raising chickens and other duties. Hal remarked, "My brother and I thought we were rich! And we were, not from a monetary standpoint, but to be in a stable, loving home with discipline and spiritual guidance was an ultimate in true riches. Not to mention the clean sheets, the excellently prepared southern food, and a day or two every year on the big Tennessee river fishing!"

Hal's spiritual interests were nurtured at the local Baptist church and his scholastic ones at school where he was the valedictorian for his graduating class of 1950. His continuing education included the US Naval Academy in July 1951 where the military discipline had a great influence in his spiritual discipline. But at the end of three full years there, he was medically discharged because of partial loss of hearing in his left ear due to unknown causes. Then, it was on to Vanderbilt University Engineering School in Nashville where he began to meet international students from all around the world and discovered an organization just starting up called International Students, Inc. or ISI.

Betsy, who was secretarial assistant to the president-founder of that ministry, recruited Hal to be the official representative of ISI while still a student at Vanderbilt and Hal says "I later paid her back by marrying her!" Hal's missionary career took off as he began to speak in churches and recruit families to host and befriend internationals. Some of the same families are still active in this missionary program 40 years later. Hal says age is a benefit with internationals because "they respect older people. Friendship evangelism is the method - a method without guile or false pretensions. Internationals soon learn that you are their friend for life, regardless of their religious background."

Then, in 1990, Hal began "International Ministries Fellowship" or IMF. Contact IMF through Hal's e-mail address, 73424.10@compuserve.com or through regular mail: IMF, 134 Miramar Drive, Colorado Springs CO 80906. Phone (719)576-7756 or fax (719)540-8604

IMF is dedicated to helping churches in other nations reach out in love and friendship to the inter-

Phyllis Phlegar is a graduate of the University of North Carolina at Chapel Hill, and also holds a private pilot's license. She is a freelance announcer and her work can be heard on Business Radio Network, National Public Radio and the Armed Forces Radio Network. Phyllis' book *Love Online* is now available from Addison Wesley Publishing Company.

Write to Phyllis, at XHBG67A on Prodigy, P. Phlegar on GEnie, Phlegar on Delphi, P. Phlegar on AOL, 71562, 407 on CompuServe or at phyllis@cris.com on the Internet.

nationals that come to their countries. This includes the international students, the diplomats and their families and the international businessmen. The IMF consists of a team, all working out of their homes using computers and e-mail, continually developing their use of the international aspects of e-mail communication, and the World Wide Web... a low overhead way to get everyone into the act through computers and e-mail. Hal told me:

"It is an international world out there, and with a global economy advancing rapidly through GATT and other trade agreements, will do so even more rapidly...I see communication via computers as a major element in our ministry with internationals, both while they are in our (the host) country and when they return to their own countries."

When these international students return to their home countries, they invariably end up working at educational institutions in a teaching capacity, usually as professors, or for a branch of their national government or employed for research or management in a major multi-national corporation...all with links to the Internet...and the ability to stay in touch with IMF members at a small cost but with greater efficiency than any other means of international communication. And the online missionary net of IMF continues to grow.

If that weren't enough, Hal started an e-mail newsletter for Christians in ministry work to provide encouragement and information. Hal's 40 years of experience have been very useful to people new to missionary work. The newsletter also forms a link with the missionaries so they can call on each other for assistance and advice in their various works. The newsletter is called *SPICE* which stands for *Special Pointers for International Christian E-mailers*. *SPICE*, which is e-mailed out free of charge once a month to those who request it, has over 100 subscribers and the newsletter gets forwarded extensively. Contact Hal to be added to the *SPICE* mailing list: e mail://73424.10@compuserve.com

Through the cyberspace travels of IMF, much work is done that could not be done in person without perhaps getting killed. Within the last few months, a life-threatening situation arose with an international, who was being cared for by an IMF affiliate half way around the world. The staff

of the affiliate ministry had befriended this student from a middle eastern country. The student had requested a New Testament portion of the Bible so that he could compare it with his own holy book.

Through vivid dreams, bible study, and support from Hal's associates, "James" became an avid student of the Bible, attending meetings of the fellowship of international students. (For the people of most middle eastern countries, dreams are important and very meaningful. Almost all those from the Middle East that make decisions to turn to Christ do so because of dreams.)

However, friends of his from his home country, and followers of their "state" religion, found out what James was up to, and threatened his life; what James was doing was viewed as blasphemy. James' father, a prominent man, was contacted and apparently intended to take James home and get him to recant.

Soon Hal began getting e-mail messages about the plight of James. In Hal's home at the time was another associate from an Asian country not too far from the country where James was studying. With speed and safety only possible via cyberspace, arrangements were made via e-mail for James to go to this third country and stay with Hal's associates.

Through the years Hal has known of converts...his friends...poisoned to death by their own families. James' case was not the first, and Hal often has taken similar measures to protect those who wish religious freedom. Others have managed to quietly continue their new faith and even lead others to their new faith under some of the most strictly controlled religious governments. In one such country in a story not unlike those in the New Testament, one of these believers was found out, publicly executed by the government, but he did not reveal the names of the others with whom he worshipped and fellowshiped!

For obvious reasons, Hal couldn't safely tell me much else about these kinds of situations, but they are part of the bulletproof missionary work: being able to find solutions to all kinds of problems via e-mail. For Hal, cyberspace means new information to use, absorb, and/or to pass on...everyday means some exciting opportunity via e-mail and it is real and bringing change in lives. ♦

LOVE ONLINE ADVICE LETTERS

"Love Online - The Advice Column" is coming to the World Wide Web next month. Write to e-mail://advice@cris.com. Here is a letter I recently received from a reader:

Dear Phyllis,

Can you tell me if, in the process of writing your book, the number of successful marriages or relationships that have evolved from online romances?

This is a subject of great interest to me since I have been somewhat involved with a woman from another state for over a year now and have yet to see her face to face. Naturally there are a few fears of meeting this person in the future. What I do not understand is why or how people can become so emotionally involved with (in all reality) a computer screen! It happened to me, but I am not sure what chain of events led to this so called relationship. Can you offer some insight?

Sincerely,
Needs Insight

Dear Needs Insight,

Couples have been meeting online and marrying since the first bbs and online service went on the air. But there's probably no way to get an accurate headcount of just who has tied the knot; some couples won't go public with their story, and each month, additional couples are getting married. And as to the success of the marriages, we can only speculate because a lot depends on how honest the parties were with each other when they exchanged e-mail and chatted live.

Of course you realize that you're not involved with a computer screen, it just sometimes seems that way. You're involved with a real person and this communication is text to text, a wonderful way for personalities to unfold, the ultimate meeting of the minds, if you will. It often happens without you realizing it, you're not alone by any means. The keys to success include honesty between the two parties, taking things slow and knowing yourself. Good luck!

Phyllis

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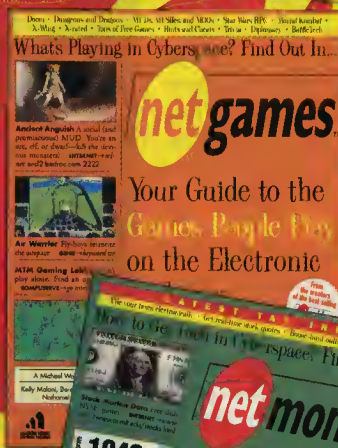
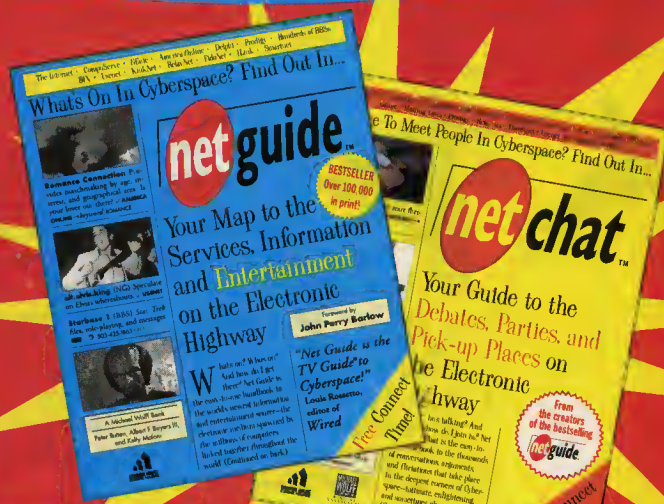
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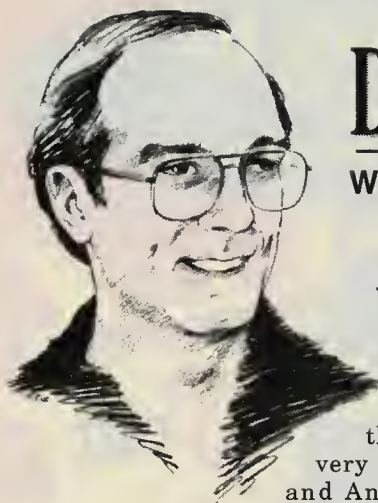


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DIRECT DIAL

by David Hakala

WORLD DATA NETWORK – A SLIP-ING PC BOARD

We wrote about the birth of World Data Network, Inc.— (703)620-8900 – back in April, 1994. Today, the prodigy of a marriage between two of the oldest and largest BBSs in the Washington DC area is alive and very well indeed. Sysops Tony McClenny and Andrew Bilski boast 36 phone lines armed with v.34 modems, a T1 line and a thriving BBS/WWW consulting and services business. The PC Board system can be reached via dialup lines or **telnet://wdn.com** and, of course, they have a Web page at **http://www.wdn.com**. The BBS offers more than 80 online games, gigabytes of shareware, over 2,000 e-mail conferences drawn from Fidonet, Ilink, RIME and USENET. Subscribers get access to Internet services including e-mail, ftp, gopher, telnet and rlogin, the www Web browser, archie, whois and finger.

This abundance of services has attracted over 15,000 subscribers in WDN's first year. There are budget six-month membership packages in the \$25 to \$65 range for those who just want BBS, e-mail and newsgroup fun. Packages including full Internet access start at \$32.50 for 90 hours or 90 days (whichever comes first) to \$130 for 360 hours or 360 days.

Now, WDN is one of a handful of BBSs to offer its users SLIP access. The SLIP server is a 486/80 Linux-based machine that dynamically allocates IP addresses to callers; that is, you get a different, temporary IP address each time you log on. A 10-port Livingston router provides the IP connection and a Novell LAN links the SLIP server to the PC Board system.

The logon procedure for dynamically allocated IP addresses nicely compliments our Trumpet Winsock v2.1 tutorial elsewhere in this issue.

1. Use Trumpet Winsock's TCPMAN Dialler to manually call the WDN BBS: **atdt 1-703-620-8900**

2. Log in with name and password as usual
3. Enter **INTERNET** to access the Internet services menu
4. Enter **SLIP** to connect to WDN's SLIP server
5. When your temporary IP address is displayed, select **File | Setup** from TCPMAN's menu
6. Write down your normal IP address, then enter the temporary IP address in its place.
7. Select **OK**. Ignore the ensuing advice to "restart Trumpet Winsock for the network setup to take effect."

8. Press the Esc key to engage **SLIP**

9. Minimize Trumpet and start your Web browser

Voila! You're off and running on the Web. Remember to restore your normal IP address in TCPMAN after your session. If you are using Trumpet Winsock v2.1, you can create an alternate INI file, e. g., **WDN.INI**, and use v2.1's new command-line switch **-INIPATH=C:\<path>\WDN.INI** for WDN sessions, while keeping your normal IP address in a separate INI file, e. g., **PERM-IP.INI**.

McClenny says it was no piece of cake to get a SLIP server running under Linux. A Linux "guru" got most of the job done, but couldn't quite get Linux talking to PC Board over the network.

McClenny and Bilski tinkered for nine days, got it right once and then managed to erase their success. (Sounds like Jack and Gary fooling with our Website.) Finally, they rediscovered their miracle and made several backup copies.

WDN is an outstanding example of what it takes to be a successful sysop in the Internet Age. McClenny and Bilski have fully embraced Internet connectivity, and an entire world of subscribers is now theirs. ♦



WDN sysops Tony McClenny & Andrew Bilski

GATEWAY ONLINE: THE SECOND MILLION CALLERS

At 12:35 a. m. CST on June 25, 1995, an 18 year-old man nicknamed "truth" became the 1,000,000th person to log on to Gateway Online - (313)291-4296 - a Major BBS that bills itself as "metro Detroit's on-ramp to the computer superhighway." Mr. Truth won a limo-chauffeured dinner at The Whitney Restaurant, one of the swankiest eateries in town. The 1,000,001st caller got dinner for two at Big Boy's diner and \$15 for cab fare. The 999,999th caller got dinner for two at

ROM storage are online at any moment. A basic BBS-only subscription costs \$8 per month with up to three hours per day. The premium service including PPP access to the Internet costs \$22 per month for the first 40 hours and \$0.60 per hour thereafter.

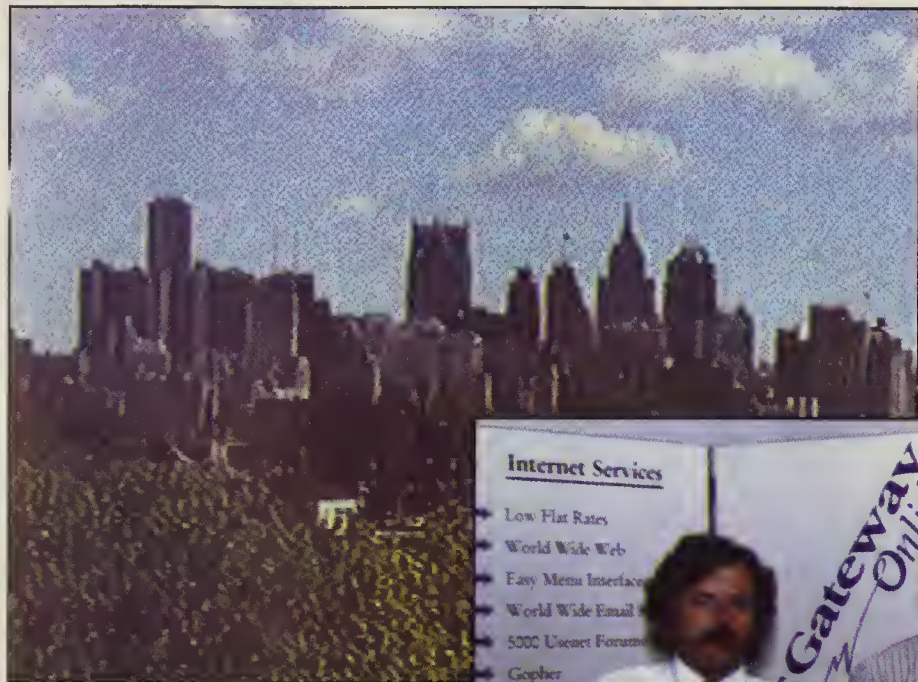
Gateway Online provides local-call dialup access to 58 local communities. Mullen says the company plans to continue expanding its private network. He likens Gateway Online's local-area service to "the backyard fence. Although we provide access to the 20 million people who are on the Internet... we also offer

notion that computer online customers are isolated individuals who never venture into the 'real world,'" says Mullen. The system provides 24-hour local, national and international news, including the UPI newswire, National Weather Service bulletins, immediate tornado warnings and school closing notices from State Police bulletins. Consumers get the news at the same time local news reporters get it.

Internet services include telnet, ftp, gopher, IRC and the lynx text-based WWW browser. Gateway Online has introduced PPP service in two areas and is steadily expanding into others. Private e-mail and over 6,000 USENET newsgroups keep customers in touch with each other and the world.

All of the above costs just \$8 to \$22 per month, a fraction of the charges for similar services via AOL, CompuServe et. al.

Mullen notes that Gateway Online does not carry any **alt.binary.erotica** conferences and ask users not to upload image files of any kind. Gateway Online has used The Major BBS' "smut filter.



McDonald's and the phone number of a cab company.

A million callers is a milestone for any BBS; this one hit the mark in just four years of moonlighting effort. Bill Mullen, Desktop Computer Manager for Detroit's Channel 4 TV station, started the enterprise with electrical engineer Jeff Breitner. Both still work "real jobs" while building their online service business.

Presently, Gateway Online boasts 70 dialup lines equipped with ZyXEL and Intel 14.4 Kbps modems. Inter-LATA callers are linked by three 64 Kbps leased lines. Another 64 Kbps leased line provides the Internet connection at a cost of \$1,000 a month. Gateway Online is upgrading to T1 service and expects to complete that project by the end of August, at a cost of \$3,000 per month. Two 486/100 computers host servers. 8 gigabytes of disk and CD-



Left to Right
Bill Mullen, Jeff Breitner, and Dave DeFord

the opportunity to chat with neighbors about local issues and events."

Currently, Gateway Online customers spend 38% of their time chatting with each other, 23% accessing the Internet and 19% playing interactive games such as Dungeons and Dragons or Galactic Empire. In-person softball teams have grown out of these online relationships, just as teams are created by bar buddies and coworkers. "This puts to bed the

feature, but Mullen says they're about to drop the filter in light of the recent Prodigy vs. Stratton Oakmount case, in which Prodigy was found liable for libelous statements made by its users simply because Prodigy actively monitored and controlled message content.

Gateway Online has doubled and tripled its membership during each of its four years. The second million callers should be easier. ♦

THIS MONTH'S LIST

The largest third political party in the U.S., the Libertarian Party garnered over 1,000,000 votes in the last Presidential election. Libertarians preach personal responsibility for governing oneself, and tolerance for the values of other peaceful, honest people. They believe that government has no business doing anything except defending citizens against violence. In a Libertarian utopia, all the "services" that government provides - with the exception of national defense - would be privatized. Libertarians oppose military drafts, the minimum wage, income taxes, licensing requirements, zoning laws and of course anything that interferes with one's right to say whatever one wishes to say.

"The Internet interprets censorship as damage and routes around it."

- Anonymous

John Perry Barlow, cofounder of the Electronic Frontier Foundation, Grateful Dead lyricist and retired Wyoming rancher, thinks the Internet is creating more political libertarians every day. "We may have to declare cyberspace sovereign," he says, because "they do not know very much about our country," referring to our dully (sic) elected officials. Barlow believes that digital cash will rearrange the financial world in the next six months. Money-laundering and offshore banking will become home projects and "taxes will become voluntary."

"Technology is on the side of anarchy," says Walter Isaacson, head of new media for Time Warner. An anonymous wag notes that "the Internet interprets censorship as damage and routes around it." Small wonder that Libertarians are attracted to - and perhaps born in - the online world.

Kevin Alan Brook is an undergraduate student at Bryant College in Smithfield, Rhode Island. He became involved with the Libertarian Party starting in 1992. Since May 1995, Kevin has operated a World Wide Web page, the Khazaria Info Center, at <http://acad.bryant.edu/~kbrook/khazaria.html>

The BBSs on this list feature Libertarian-related message echos and/or file areas. It is updated on a regular basis, and is distributed on the Internet in the **libernet@dartmouth.edu** and **libernet-d@dartmouth.edu** mailing lists. It is also found on The Libertarian BBS (203)257-1960 and The Brewster BBS (914)279-2514 ♦

53 LIBERTARIAN BOARDS

Please e-mail any comments, additions, corrections, etc. to Kevin Brook at kbrook@acad.bryant.edu

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Space/Time Continuum	206-536-1528	Tacoma, WA
Electronic Educator	206-837-3299	Washougal, WA
The Blues Cafe	214-638-1186	Dallas, TX
Imad-ad-Dean	301-656-4714	Bethesda, MD
IBEC/TeleStar	303-426-1866	Adams County, CO
Knowledge Resources	303-678-8439	Longmont, CO
OK Corral TBBS	303-832-4197	Denver, CO
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Running Wild	404-279-0717	Atlanta, GA
Liberty Bell	408-243-1933	Santa Clara, CA
West Coast Online Mag	408-946-8592	San Jose, CA
FreedomNet BBS	410-857-4455	Westminster, MD
Dehnbases Rainbow	415-857-1209	Palo Alto, CA
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The Terra Libra BBS	602-285-9280	Phoenix, AZ
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Boot Hill	610-436-8915	West Chester, PA
The Cellar	610-539-3043	Trooper/Oaks, PA
The Dockside BBS	610-678-0350	Reinholds, PA
The Power BBS	610-740-9196	Allentown, PA
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Minnesota Libertarian	612-938-3702	Minneapolis, MN
Tangent BBS	617-364-1576	Boston, MA
Synthesis	617-784-2773	Sharon, MA
The D-Generation BBS	701-258-0872	Bismarck, ND
Connect One	702-753-7574	Elko, NV
Hi-Tech Gateway BBS	706-694-3295	Cohutta, GA
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TNOL Online	805-438-4242	Santa Margarita, CA
Andy's Attic	816-792-4890	Liberty, MO
Treadwell	907-364-2444	Juneau, AK
The County Seat BBS	910-386-9867	Dobson, NC
Mayberry BBS	910-789-8183	Mount Airy, NC
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The Rifle Range	914-452-4753	Poughkeepsie, NY
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Rob's Room	919-444-6347	Havelock, NC
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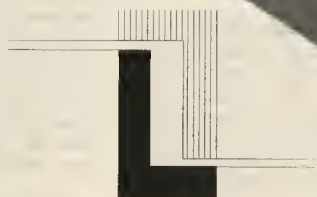
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Society of Sexual Diversity (205)921-3948 Blackland, Alabama since 05/95. Sysop: SSD. Using Excalibur 0.82 with 1 line on WINDOWS with 340 MB storage. Boca at 28800 bps. \$25 Quarterly fee. SSD is a Secret organization that accepts all sexualities. Forbidden sexualities welcome. Counseling. Support. Adult GIF library. SSD news. Erotic stories. Graf xchange. Classifieds categorized by sexuality. Totally uninhibited environment. Confidential

Barter America BBS (206)770-2364 Puyallup, Washington since 02/91. Sysop: Douglas Jones. Using MajorBBS Worldgroup with 20 lines on MS-DOS with 500 MB storage. Hayes at 14400 bps. \$2.00 Hourly fee. Telnet access 192.207.47.72 Barter america is now running Worldgroup by Galaticomm Inc. If you like to run your programs under windows we think you will like the changes. The client software is free, download it from us. We accept Visa and Master cards.

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Liberty BBS (213)732-2300 Los Angeles, California since 07/92. Sysop: David Salch. Using MajorBBS WorldGroup with 203 lines on MS-DOS with 15360 MB storage. ZyXEL at 19200 bps. \$25 Monthly fee. Members are overwhelmingly adults with adult discussions and forums, but system is open to all. Features Internet, Web & your own home page. Other numbers local to most of Southern California and nationwide via BBS DIRECT, or telnet to liberty.com

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Dugent BBS (305)461-3779 Miami since 01/95. Sysop: Nye Wildden. Using WildCat 4.10 with 1 line on MS-DOS with 5000 MB storage. US Robotics at 14400 bps. \$19.95 Annual fee. Adult Erotica. The files of Gent (D-Cups), PLUMPERS (Fatties), and SUGAH (Black Women). Each offers models, features, and adult merchandise. Quality TIFFS. Also On-line ordering system for back issues, subscriptions, and videos.

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Liberty BBS (415)325-6781 Palo Alto, California since 07/92. Sysop: David Salch. Using MajorBBS WorldGroup with 203 lines on MS-DOS with 15360 MB storage. ZyXEL at 19200 bps. \$25 Monthly fee. Members are overwhelmingly adults with adult discussions and forums, but system is open to all. Featuring Internet, Web & your own home page. Other numbers local to most of S.F.Bay and nationwide via BBS DIRECT or just telnet to liberty.com

The Skull (415)579-5544 San Francisco, California since 08/84. Sysop: The Dozer. Using PCBoard 15.21 with 16 lines on MS-DOS with 20000 MB storage. US Robotics at 28800 bps. \$10 Quarterly fee. Highest quality Asian adult graphics in the country. Skull CD ROM available. We have full motion video w/sound. Our objective is high quality adult images. Great rates. User friendly. 20 gigabytes of adult images. Internet access via telnet too.

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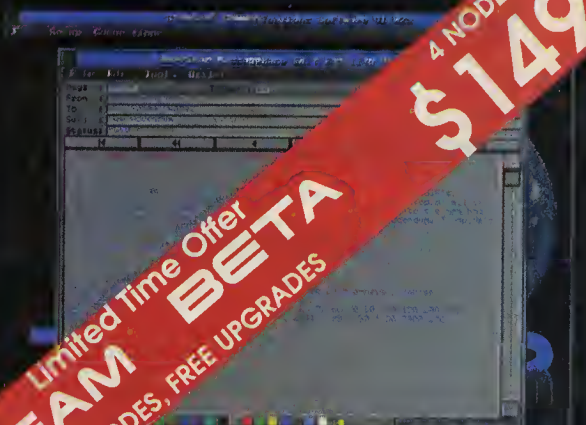
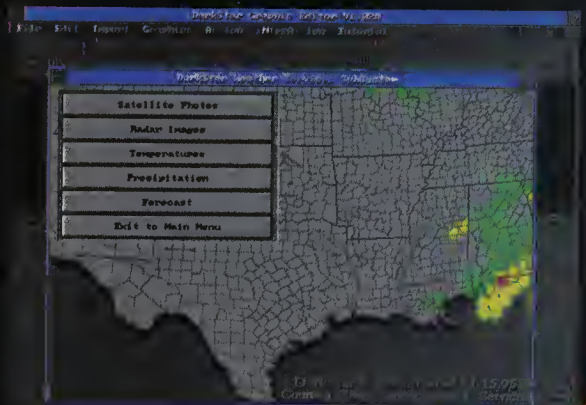
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Rama One BBS (R1C) (718)366-6165 Glendale, New York since 01/94. Sysop: Tommy Brunning. Using MajorBBS 6.25 with 5 lines on MS-DOS with 10000 MB storage. US Robotics at 14400 bps. \$1 Hourly fee. The ultimate file server. 100,000+ adult graphic files on 50+ CD's. 1,000+ shareware games in 100+ libraries. Always adding hot, new material. Member <ASP>, member <IMBBSA>. Visa MC Amex 900 and checks accepted online. Never a charge to look around.

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Shoreline Park BBS (805)373-6919 Thousand Oaks, California since 06/94. Sysop: Brian Waingrow. Using TBBS 2.3M with 4 lines on MS-DOS with 2000 MB storage. PPI at 28800 bps. \$25 Annual fee. New age, environmental, scuba diving & much more. Internet e-mail & newsgroups, tons o'files and message areas, games, online publications, daily weather and earthquake reports. No porn or x-rated stuff here. Fun and educational for the whole family.

One Eyed Jack's (810)399-2845 Oak Park, Michigan since 09/93. Sysop: Jack. Using TBBS 2.2 with 2 lines on MS-DOS with 4500 MB storage. Hayes at 14400 bps. \$.55 per file fee. Hot adult graphics. Easy to use. We are set up for the first time BBS caller. Over 20,000 hot adult images movies, & fantasy stories. No online time charge, only 55 cents per file downloaded. Visa, MasterCard, Discover accepted for instant access.

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InfoNATION online (810)749-0901 Chesterfield, Michigan since 10/93. Sysop: Brian Beck. Using PCBoard 15.21 with 2 lines on MS-DOS with 4800 MB storage. PPI at 14400 bps. \$4.95 Monthly fee. Fee or free. Professionally run online service offering Internet E-mail & USENETnews.Tens-of-Thousands of files online. FTP, ARCHIE & WWW services via E-mail Easy to use for the novice by powerful for the expert. Call today for FREE 5 hour FULL access.

The Medugorje BBS (815)758-1293 DeKalb, Illinois since 05/95. Sysop: Steve Shawl. Using MajorBBS 6.25 with 2 lines on MS-DOS with 1000 MB storage. US Robotics at 28800 bps. No fee. Informational BBS dedicated to Marian Apparitions in Medugorje (a village in former Yugoslavia). Even if you are not religious, this information is fascinating, and important! Give us a call and check it out.

Why? Telecommunications (817)261-6642 Arlington, Texas since 11/94. Sysop: Matthew Wright. Using TBBS 2.3 with 32 lines on MS-DOS with 22000 MB storage. US Robotics at 28800 bps. No fee. Free Internet e-mail. SLIP/PPP & Shell accounts. 200,000+ files, 3 million+ messages. Multiplayer games/chat. Daily news feed & hourly sports & weather updates. Local call for 817/214 area codes. why@whytel.com.Voice (817)461-9904

The Serial Port (817)431-2342 Keller, Texas since 03/82. Sysop: Stu Jackson. Using TBBS 2.2 with 16 lines on MS-DOS with 11000 MB storage. ZyXEL at 16800 bps. \$6 Monthly fee. We've moved from Michigan and love Texas. Come on by for a few files or some live chat between users. We have over 11 Gig of PD and adult files available. Ham radio and sat sections too. Games, mail, fun. Visa, MC, Discover for instant access.

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Electronic On-line Marketing (904)689-2203 Crestview, Florida since 04/95. Sysop: Mike Catling. Using Media Host V1.0 with 2 lines on WINDOWS with 1000 MB storage. Practical Peri. at 19200 bps. No fee. Business oriented BBS, Advertising homes, investment property, cars, boats, and merchandise. All ads come color images. Also have job listings, file D/L's, mail echos, club database, interactive BBS listing, and much more. Check out our ad rates. Cheap.

The Autoboard BBS(tm) (908)462-8889 Freehold, New Jersey since 01/95. Sysop: Scott Neuman. Using WildCat 4.1 with 8 lines on MS-DOS with 1.2 MB storage. US Robotics at 19200 bps. No fee. The Marketplace for all types of pre-owned motor vehicles. Buy a car online. Full color photos in seconds. Free windows Software. Easy to use menus. You've never seen anything like it before. Reviewed by Boardwatch July 95. NJ #800-946-6888.

This Notes For You BBS (908)505-8420 Toms River, New Jersey since 01/91. Sysop: Scott Neuman. Using WildCat 4.01 with 2 lines on MS-DOS with 640 MB storage. Hayes at 19200 bps. No fee. Home of Record Collectors. Free catalog of rare and hard to find records for download. Free access. Tons of files and gifs. Find the record you've always wanted. See us in Discoveries Magazine. Snoop Music will buy sell or trade your records.

The IRONHORSE BBS (908)517-1431 Oakhurst, New Jersey since 05/86. Sysop: Rem Hunnewell. Using PCBoard 15.21 with 3 lines on MS-DOS with 5500 MB storage. Supra at 28800 bps. No fee. New Jersey's friendliest BBS. Over 5 gig's of files, including adult graphics. Internet e-mail, newsgroups, Rushnet, Throbnets, Jobnet and many others. Online Registration. Chat, online games, and much more. Downloads allowed on first call.

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List of BBS List Keepers

This listing comprises a list of those who compile and maintain lists of bulletin boards, either by topical category, or by some geographic area or definition - often by area code. The primary bulletin board system where the list can be downloaded electronically is also included.

BBSLIST TOPIC	AUTHOR/EDITOR	CONTACT BBS	TELEPHONE
New Jersey BBS's	Scott Drake	T.E.R.N. BBS	(201)399-4772
Connecticut AC 203	Kevin Brook	Creative Edge BBS	(203)743-4044
BBS With Handicapped Focus	Bill McGarry	Handicap News BBS	(203)926-6168
Manitoba Canada AC 204	Victor Laking	Generic BBS	(204)475-5199
West Washington AC 206	Bob Dinse/Nanook	Eskimo North	(206)367-3837
Tacoma Washington AC 206	Richard Langsford	AmoCat BBS	(206)566-1155
Puget Sound Area AC 206	Art Tomlin	Orion Station	(206)675-0565
Kitsap County Washington	Michael Schuyler	Quicksilver BBS	(206)780-2011
Modesto CA AC 209	Dennis	The Connection BBS	(209)549-7980
Tracy CA AC 209	James Arnold	The Sinking Ship	(209)833-3615
Stockton AC 209	Monty A Gonzales	The Wrong Number BBS	(209)943-1880
San Antonio TX AC 210	Donna Murrell	Main Complex BBS	(210)658-8009
Graphical User Interface BBS	David Shapiro	The Gooney (GUI) BBS	(212)876-5885
96 List - 9600+bps BBS	Ken Sukimoto	Downtown BBS	(213)484-0260
Employment BBS's	George Smith	Executive Connection	(214)306-3393
Dallas/Ft.Worth BBS List	Mark Elson/Mike Shockley	Blues Cafe	(214)638-1181
Open Access UNIX Site List	Phil Eschallier	LGNP1 (login:BBS)	(215)348-9727
Cleveland Area 216	Jim Barry	Flip Flop	(216)951-9134
Educational and Indiana BBS	Joe McIntosh	KSI Public BBS	(219)626-2150
Conservation/Nature BBS List	D.Wendling/JS Christianso	Coin of the Realm	(301)585-6697
Ham/Amateur Radio BBS	Stan Staten	3WINKs BBS	(301)590-9629
Handicapped Issues BBS	Richard Barth	HEX BBS	(301)593-7357
Desktop Publishing BBS	Frank Atlee	Infinite Perspective	(301)924-0398
Delaware AC 302	Vince Boehm/Dave Osburn	Talk Radio BBS	(302)429-7667
Colorado AC 303/719	Willis Morrow	Big Boy's BBS	(303)458-3832
Cave Exploration BBSs	Douglas L. Moore II	The CatEye BBS	(304)592-3390
South Florida Area 305/407	Eric Thav	Silicon Beach BBS	(305)474-6512
Southern California	Mike Hefferman	SOCAL Corner	(310)422-7942
California AC 310	Jim Walton	Illusions BBS	(310)804-3324
Detroit AC 313	Tom McEachern	Wonderland BBS	(313)274-3531
Detroit Area 313	Horst Mann	Tony's Corner	(313)754-1131
St. Louis AC 314	Beth Brooks	Fire Escape's Dir	(314)741-9505
ASP BBS Member List	Richard Holler	The RoadHouse BBS	(317)784-2147
Engineering Related BBS	Arthur Petrzelka	Computer Plumber	(319)337-6723
Rhode Island Area 401	Mike Labbe	Eagle's Nest	(401)732-5292
Alberta AC 403	Stephen Decarie	T-8000	(403)246-4487
Calgary Alberta AC 403	Jeremy Birkett	The Quantum BBS	(403)252-5119
Atlanta Area 404	Online Atlanta Society	OASIS	(404)627-2662
Oklahoma City AC 405	John Burton	The SandBox	(405)737-9540
Montana Area	Jay Michalik	Valley Light BBS	(406)273-6399
Searchlight BBS Systems	Chad Payne	Montana MediaNet	(406)549-6325
Orlando BBS List AC 407	Lenny Lacuy	Infinite Space Onlin	(407)856-0021
San Francisco Bay Area	Mark Shapiro	BABBA BBS	(408)946-8592
Baltimore BBS Area 410	David Fogle	Silver Streak BBS	(410)254-3400
Pittsburgh AC 412	Chas Stokes	Zuul's Catacombs	(412)264-9787
Milwaukee AC 414	Mark G.	The Castle	(414)327-5085
North America Nudist List	Patrick O'Brien	Natural Connection	(414)426-2110
Toledo Ohio Area 419/313	Ryck Zarick	Toledo's TBBS	(419)475-2241
Arkansas Area 501	Bob Underdown	The Blue & The Grey	(501)444-8420
Louisville KY South IN	Tim Arnold	Dance of Shiva BBS	(502)893-6360
Portland Oregon BBS	Lisa Gronke	DawGone Disgusted	(503)297-9145
New Mexico AC 505	Dan Kiehl	MDC Computers BBS	(505)434-0258

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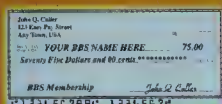
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CONTACT BBS

TELEPHONE

Apogee/ID/Software Crtns List	Dan Linton	Software Creations	(508)368-7139
PCBoards on Internet	Ruben Melo	ponyXpress BBS	(508)587-7669
Worcester MA AC 508	Charles Grosvenor	Information Society	(508)832-7542
Corpus Christi	James Cordani	Treasure Island	(512)241-8358
Austin Area AC 512	John Foster	Camel's Back BBS	(512)243-0077
Selected BBS	Joseph Caplinger & Son	J&J's BBS	(513)236-1229
Free Shareware AC 516	Harold Stein	Long Island Exchange	(516)271-5303
516 AC, 800 numbers, Freenets	Wilton Virgo	Long Island BBS	(516)338-8595
Area Code 517 - Mid-Michigan	Rick Rosinski/SAMM	Wolverine BBS	(517)695-9952
518 AC	Dave Hitt	Electric Avenue	(518)899-3292
Phoenix AC 602	Sue Widemark	Cheese Whiz BBS	(602)279-0793
Cochise County Arizona	Kevin McCrory	The Commo Shack BBS	(602)452-0587
Arizona and Southwest U.S.	Michael	BBSouthWest	(602)820-7861
New Hampshire	Mike Maggi	Marios Birdhouse	(603)226-0467
Victoria/Vancouver AC 604	Mark Morley	Island Net	(604)477-5163
Kentucky AC 606	Jon Hagee	Kentucky Explorer	(606)271-1451
Wisconsin 608	Jim Wargula	JW-PC Dataflex.HST	(608)837-1923
New Jersey AC 609	Dave Schubert	The Casino BBS	(609)485-2380
Real Estate Boards	Ted Kraus	Dealmakers Online	(609)587-4651
New Jersey Area 201/609/908	Wayne R. Morton	Praedo BBS	(609)953-0769
Medical Issues BBS	Edward Del Grosso	Black Bag	(610)454-7396
Job Search and Inet hot list	Ward Christman	Online Opportunities	(610)873-7170
Minnesota Twin Cities AC 612	Barry Watson	Abiogenetic BBS	(612)774-8454
Apple II BBS	Mike Shecket	Way Out	(614)436-4846
Business/Professional BBS	Dennis Hauser	Delight The Customer	(616)662-0393
Female Sysops	Brenda Donovan	The Pacific Rim	(619)278-7361
San Diego, CA AC 619	Tom Grigg	ComputerEdge	(619)573-1675
San Diego AC 619	Joe Nicholson	General Alarm	(619)669-0385
Apple II BBS with Internet con	Morgan Davis	pro-sol	(619)670-5379
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CardService of MetroWest.....	141, 159	Michael Wolf & Company.....	151
CD View	162	MMB Development.....	105
Centel Communications	146	Modern BBS	133, 147
ChatLink Software.....	128	MurkWorks, Inc.	38
Cheersoft	125	Mustang Software, Inc.....	23, 44, 57, 111
Cinecom Corporation	100	NTP, Inc.....	158
Clark Development, Inc.....	34	NTTC	146
Columbus Micro Systems	133	NUIQ Software, Inc.	58
Control Corporation.....	66	NY Web, Inc.	143
Connections BBS.....	113	Odyssey Online.....	59
ConXtions	117	ONE, Inc	174
Cyclades	125	Online Search	158
DataSafe Publications, Inc.....	62, 147	Online Technologies.....	157
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DFW Electronics	159	Planet Systems, Inc	93
Digicom Systems, Inc	101	Power Computing.....	53
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Durand Communications Network	16	Saga Solutions.....	160
EC Computer Services, Inc	107	Searchlight Software.....	48
Emerge, Inc.....	163	Sirius Software, Inc.....	133
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eSoft, Inc.....	6, 172	Team Darkstar.....	161
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First Alliance	141	Trader's Connection	143
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Galacticomm, Inc	2, 85, 176	US Cyber	159
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DVORAK ONLINE by John C. Dvorak

PRODIGY & WIN 95 - TWO LOSERS

Well I dusted off my trusty old "PRODIGY SUCKS" T-shirt from a few years back. If you recall a few years ago, when Prodigy was in the throes of various self-inflicted controversies, it censored some postings and made high-and-mighty commentary about how it's a family service and how it must censor postings. THAT, as most of you know by now, was the pronouncement that got the company into trouble in New York State as Judge Stuart Ain held Prodigy liable in a libel suit because Prodigy "functions more as a publisher than as a passive conduit."

If Prodigy had never been so adamant in the past it would not have been bitten in the butt by all this. Now a spate of suits will fly. These are not trivial threats to these online services. The Internet doesn't have this problem and most observers feel that CompuServe, MS-Network and AOL will also avoid them. I'm not convinced.

Except for the Internet, these services are hardly "passive conduits." CompuServe has always said that it owns the copyright to everything it puts up on the net and that seems to me to be "publishing" in the same way as Prodigy. AOL has copyrights and trademark stuff all over the place and one has to assume that this is also a form of publishing. Microsoft Network is set up in such a way that much of the material is posted as a joint venture with Microsoft. Microsoft acts as publisher as far as I can tell. So while the Prodigy practice from years ago, (it now says it gave up on the practice of censorship - "irony of ironies) set them up for the fall, you can still expect all the online services to come under scrutiny by the court system no matter what the online services think is a conduit and what's not a conduit.

The deepest pockets will be Microsoft's and once that service comes online expect them to be sued into oblivion. BBS operators want to be aware of this ugly trend too as they fall into the same category as most online services as far as I can tell.

I have mixed feelings about this. While I decry censorship, especially in a high-tech world full of excess hype and lies, I denounce flammers and goat-getters who have nothing better to do than to libel and slander people online. Over the years the USA has developed a forest of anti-libel and anti-slander laws and legal precedents to the point where we may have gone overboard. Combining this trend with the trend towards political correctness makes it very difficult for a writer to be compelling or entertaining. There's my concern: my job.

The political correctness movement, for example, means I can only use the word "woman" instead of a variety of formerly accepted terms such as "gal" or even girl. The most nutball watchdogs out there actually use the new word "womyn" in their prose. I assume some man-hating readers see and applaud this degenerative usage. And worse, I assume some pathetic beaten men subscribe to this nonsense too.

Anyway, what you end up with is a narrowing of language for the politically correct crowd and an added wimp factor from fear of libel. No wonder nobody wants to read anymore. While the flammers online tend to be the biggest bunch of jerks and a-holes, they do entertain the masses. I have been targeted on occasion and have managed to hold my own. What's annoying is when you get flamed behind your back by a weasel who won't even give his own name and then folds his account. This is all too common and this is why someone should put a stop to it. It's the online equivalent of a poison pen-letter and there is no reason to protect its existence. Thus someone has to take responsibility.

At this point someone will argue that it's too much work. Yes it is. Get used to it.

WINDOWS 95: HIT OR MISS?

Thoughts on Win 95 and the coming roll out. As we arrive at the Win 95 roll out I'm told Microsoft will spend a cool \$100 million on its coming out party. Yow. Ouch. Is this really necessary?

I'm reminded of a comment I once heard about movie promotion. "Gee, if they're spending that much on TV promotion, the movie must not be very good!" A curious rule that seems true. The movie CONGO comes to mind.

I fear for Windows 95. I fear for the whole industry. Everyone knows that the 4th quarter is going to be ruined for most software companies as people transition to the new product. Microsoft with its \$100 million has bought virtually ALL the shelf space from all the retail stores. When you go shopping in late August and September its going to be pretty much ALL Microsoft except for the few niches that were locked down by others in long term deals.

The result is that Windows 95 is going to be overhyped and far too many novices who have had their computer for maybe one or two years will buy the product much to their dismay. They'll migrate everything to it and one lone ill-behaved program or one lone important database will get corrupted by the

In addition to his weekly syndicated radio call-in show, "Software/Hardtalk," syndicated newspaper columns, magazine writing for *MacUser*, *PC Computing*, *DEC Professional*, *Information Technology*, and his featured "Inside Track" column in *PC Magazine*, Dvorak is the author of several best-selling books, including *Dvorak's Inside Track to DOS & PC Performance*, *Dvorak's Guide to PC Telecommunications*, and *Dvorak's Inside Track to the Mac*.

switch-over. Telecom and Internet-related programs seem to have problems with Win 95 too. Then all hell will break loose as the complaints hit the streets. We'll all be awash in a sea of anger. Many of us will be blamed for not warning these poor saps. As if they'd listen.

This product may be the best thing Microsoft has ever done, but it won't be as reliable as Win NT or OS/2 WARP. There's just no evidence that it can be due to the memory model. (Read all about this in the trades.) The end result will be a lot of complaining. I was stunned when the *Seattle Times* ran a long story (actually a blast) in the June

11th Sunday paper. It was written by a reporter who coincidentally is the typical buyer: someone who has been using machines for only a few years. This paper is seldom harsh with Microsoft.

The problem will not be with new machines loaded with Win 95. It will be with the machines that are a couple of years old and have accumulated a lot of junky old software. I was stunned by the gripe list in this newspaper article and I expect to see the scenario over and over again.

What's pathetic is that this kind of "true story" reporting of Win 95 problems is not appearing in the influential

trade magazines. While a discussion of the flawed memory model may be in the trades, the debate is objectified to the point of being useless. This means the experts out there who read the trade magazines will mis-advise people and add to the hype (if you haven't noticed). While most well-run development houses and companies have already moved to Win 95 they are expert enough to have everything backed up daily and all the bugs worked around. The average Joe will never back up his machine no matter how many times he's told to do it. If anything will be backed up in the months ahead it will be the queue waiting on hold for Microsoft support. ♦

DVORAK'S RECIPE NOOK

Obscure Barbecue Tips – Part 1

I'm a big believer that the best cooking is done outdoors over an open flame or over a pit of embers. In a general sense this is called barbecuing, but barbecue has slowly degenerated into throwing some briquets into a Weber and charring some burgers while the family waits. I prefer the term "open fire cooking." In this episode I'd like to discuss the issue of cooking with wood and how different wood should be considered.

If you go to any of the great pit barbecue palaces in the south from North Carolina to Florida you always find that wood is the cooking vehicle, not charcoal. You use wood to make your own charcoal by torching a big pile of it (the bigger the chunks the better) until it burns down to embers. You use the embers to cook with just as if it were charcoal. Some people also like to leave some half burnt wood in the mixture. The wood imparts various flavors seldom found in commercial brand name charcoal briquets. Much commercial charcoal is mostly made from bone burnt down to produce a briquet. In fact, briquets made strictly from wood, such as the Jack Daniels brand (outstanding) do not burn as nice as those perfect briquets from Kingsford. If you do need a perfect fire from briquets I have never found anything as good as a Kingsford briquet. But they are totally neutral in flavor except for the ones spiked with a little mesquite wood.

Briquets are fine when guests are coming over and you do not have time to hassle with wood, but try experimenting with wood whenever possible. And also try bags of mesquite charcoal which are kind of pre-burnt wood chunks. You use them like briquets, but it's actually chunks of burnt wood. Always buy the large sacks as the small bags are not cost effective.

Some woods to try:

Hickory: The Classic. Used in the south with pork and beef and sausage. An all purpose delicious flavor. Most concentrated liquid smoke is made from hickory smoke as everyone appreciates the taste. It's strong enough in liquid form that many barbecue places use the liquid smoke as a coating and bake the food in a regular oven thus cheating the customer of authenticity. Hickory is the standard flavoring wood to which all other woods are compared even though it's not as in vogue as mesquite.

Oak: West Coast style taste. The great "rib joints" on the West Coast all use oak exclusively. Oak and pork is a wonderful combination. This wood also competes with hickory throughout the south and has made some inroads in Texas where the plentiful mesquite rules. It's no coincidence to me that the Texas style barbecue is beef-oriented because Mesquite does not match as well with pork as does oak or hickory.

Mesquite: Some years ago this wood became the "in" wood to cook with as every wood burning nouveau gourmet pizza oven on the country used it to fire cook the calzone and roast the beef. Cheap and flavorful it tends to cook hot and fast and many outdoor amateurs have trouble controlling it. One good thing about mesquite is that you can get bags of mesquite charcoal (actually burnt wood chunks) almost everywhere. Absolutely great with beef and good with chicken and fish too.

Alder: This wood most closely resembles hickory but has a mild more delicate flavor. It's solely responsible for the smoked salmon trade in the Pacific Northwest where alder rules supreme. Incredible when used to smoke bacon. One of the great woods with which to cook fish. Try it if you can find it.

Grapewood: This is one of the most overlooked woods in this country although it is used routinely in France for delicate flavorful barbecue. Typically you get the prunings from a vineyard and let them dry out enough to burn them down. They form a great charcoal mass which burns for hours. The charcoal forms a fine white powder that, while controlling the burning and the temperature, can make a mess. So you have to be careful. I believe the flavor from grapewood is unparalleled for any fowl. The match with chicken is incredible and it also works with all red meats too.

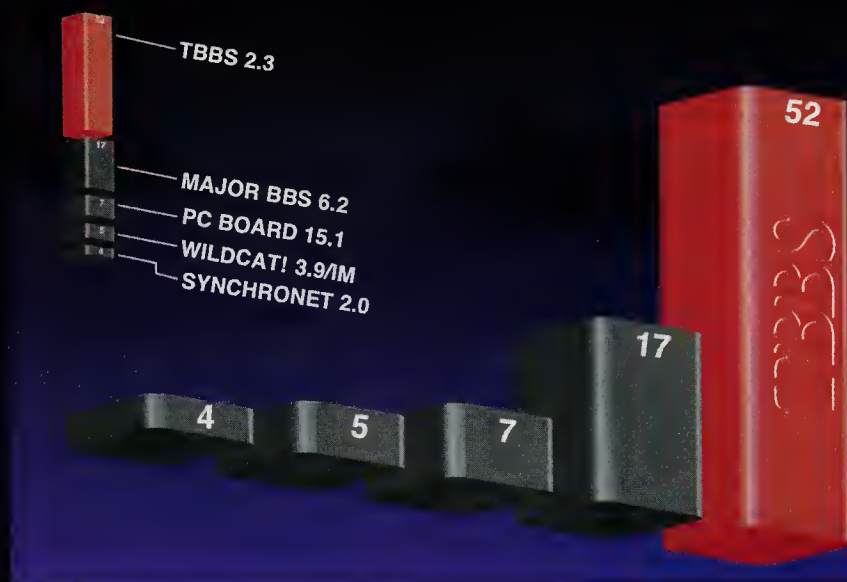
Kiawe: This is the Mesquite of the Hawaiian Islands and you can buy bags of the charcoal in most supermarkets in Hawaii. Perhaps the finest wood I've ever tasted when used to cook fish. Buy a bag and bring it with you if you happen to be vacationing there.

These are the major commercially available woods. Not on the list are fruit woods such as apple, cherry, and plum which you can experiment with. You might find a new combination of flavors. Any hardwood such as maple or walnut can also be used for cooking. Avoid all resinous woods such as pine or redwood or cedar. Some are potentially toxic. It will be a disaster. Also you'll notice that up in Vermont they cook with corn cobs calling it "cob smoked." This is the worst stuff I've ever tasted.

Over time you'll develop your own methodology regarding these woods and discover your personal favorites. To test the flavors of various woods you can always toss a piece of the unburnt dried wood on top of a briquet fire and it should impart much of its taste on whatever you're cooking although this trick usually works best in a smoker. ♦



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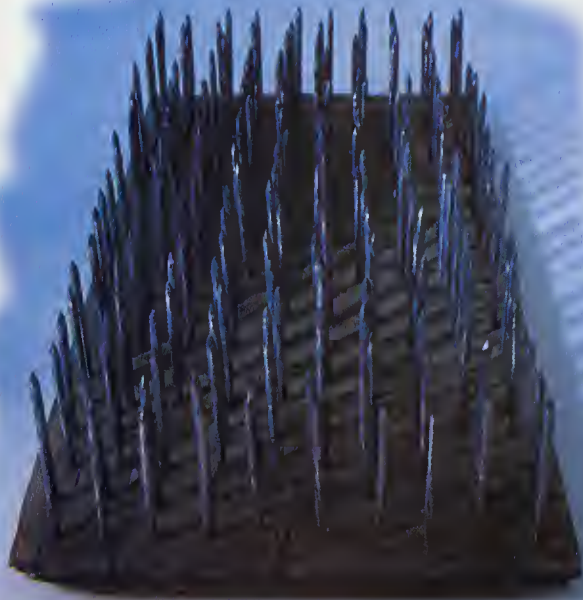
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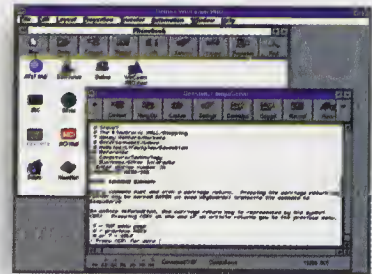
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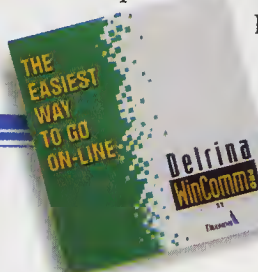
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If you are an Internet service provider, offer shell accounts, Lynx for WWW access, IRC, external USENET news readers, text-based games — all under a friendly interface that is easy to use. Applications can be run on the same machine as your BBS or on other machines connected over your network.

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The open architecture of The Major BBS for UNIX provides an API layer to design custom applications. Create shopping mall interfaces, online fax systems, interactive games, Internet tools and more. You can do all of this because we make the C source available.

The Major BBS for UNIX is currently available for Linux, SCO, Solaris and BSD/OS. For more information, give us a call at 1-800-328-1128 (or 305-583-5990 outside the U.S. and Canada). You can also send e-mail to unix@gcomm.com. Access our home page by pointing your Web browser to <http://www.gcomm.com>. Or, dial into our BBS at 305-583-1759.

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